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STATE OF SOUTH CAROLINA

REPORT

OF THE

STATE COMMISSION OF FORESTRY

FOR THE YEAR

July 1, 1935 to June 30, 1936

H. A. SMITH, State Forester



COLUMBIA, S. C.

September 1, 1936

PRINTED UNDER THE DIRECTION OF THE
JOINT COMMITTEE ON PRINTING
GENERAL ASSEMBLY OF SOUTH CAROLINA

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LETTER OF TRANSMITTAL

*To Hon. Olin D. Johnston, Governor and to the General Assembly
of South Carolina:*

Sirs: Pursuant to Section 3 of the Act of Assembly, creating the State Commission of Forestry, approved April 26, 1927; which provides that the Commission shall "inquire into and make annual report upon forest conditions in South Carolina, with reference to the preservation of forests, the effect of the destruction of forests upon the general welfare of the State, and other matters pertaining to the subject of forestry and tree growth, including recommendations to the public generally as to reforestation," I have the honor to submit the report of the Commission for the period July 1, 1935, to June 30, 1936.

Your attention is respectfully directed to the increase in forest lands under protection from one million and a half acres last year to over two and a half million acres during the period of this Report; and to the fact that forest tree seedlings produced by Nurseries under the jurisdiction of the Commission, increased from seven and a half million in 1934-35 to over nineteen and three-fourths millions in 1935-36. I would also call your attention to the more than Six Hundred and Fifty-one Thousand Dollars (\$651,000.00) expended through the office of the Commission from Federal Funds in the furtherance of the work of the Emergency Conservation Corps program.

The construction of pulp mills now under way within South Carolina, emphasizes anew the necessity for an enlarged program of forest fire control and reforestation.

Respectfully submitted,

STATE COMMISSION OF FORESTRY,

B. S. MEEKS, Vice-Chairman.

**BALANCE SHEET
THE STATE OF SOUTH CAROLINA**

**In Account With
THE STATE COMMISSION OF FORESTRY**

1928—1936

State Appropriations

	Debit	Credit
Approximately 9 Years' Appropriations	\$ 140,000.00	

Appropriations Other Than State for Forestry

CCC Camp Operation and Maintenance.....		\$14,000,000.00
Expended this Office of State Forester		2,225,000.00
Protective Association Assessments and Federal Funds		452,000.00
Total	\$ 140,000.00	\$16,677,000.00

Tangible Assets

30,000 Acres in 12 State Parks	\$	300,000.00
Improvements on 12 State Parks		100,000.00
Telephone Lines Connecting Fire Towers		100,000.00
Fire Tower Farm Projects		175,000.00
Forest Commission Inventory		5,000.00
Total Tangible Assets Only	\$	680,000.00

THE STATE COMMISSION OF FORESTRY

B. S. MEEKS, Vice-Chairman, Columbia, S. C.

DR. E. W. SIKES, Clemson College, S. C.

L. C. WANNAMAKER, Cheraw, S. C.

W. L. RHODES, Estill, S. C.

STATE FOREST SERVICE

H. A. SMITH, State Forester, Columbia, S. C.

N. T. BARRON, Asst. State Forester, Columbia, S. C.

W. C. HAMMERLE, Asst. State Forester, Columbia, S. C.

R. A. WALKER, Asst. State Forester, Columbia, S. C.

C. H. NELSON, Bookkeeper, Columbia, S. C.

MISS CAROLINE TAYLOR, Secretary, Columbia, S. C.

EITEL BAUER, District Forester, Spartanburg, S. C.

R. F. NEWCOMB, District Forester, Florence, S. C.

H. F. BISHOP, District Forester, Walterboro, S. C.

WAYNE STITT, District Forester, Aiken, S. C.

R. W. RIEGER, District Forester, Camden, S. C.

L. M. Staley, Nurseryman, Camden, S. C.

REPORT

ADMINISTRATION

During the fiscal year covered by this Report two new members of the Commission were appointed by Governor Johnston. W. L. Rhodes of Estill and L. C. Wannamaker of Cheraw, took office to succeed C. P. Cuthbert, whose term expired, and Paul V. Moore, who resigned. District Forester, W. C. Hammerle, was promoted to Assistant State Forester in charge of forest fire control, and R. A. Walker, Inspector in the Emergency Conservation Work, was promoted to Assistant State Forester in charge of State Parks. Four new District Foresters were appointed: R. W. Rieger, with headquarters in Camden, R. F. Newcomb, with headquarters in Florence, H. F. Bishop, with headquarters in Walterboro, and Wayne Stitt, with headquarters in Aiken. All District Foresters employed by the State Forestry Commission today, are technically trained men from forest schools of recognized standing.

The new set-up has materially increased the efficiency of the work of the Commission, has provided closer supervision, and more compact protection service. The necessity for such supervision may be recognized from the fact that we are today dealing with over two and one-half million acres under cooperative forest fire control, and are employing a total of five hundred and fifty-two (552) men in forest fire protection work. In addition to this number there are four hundred and fifty-three (453) men in volunteer forest fire protection crews who receive no pay, but who, because of good citizenship and their interest in conservation, are contributing their services to the cause. Captain C. H. Nelson was promoted from Clerk in the District Office under the Emergency Conservation Work, to the Columbia Office. The amount of office work, however, calls for additional permanent clerical help, and two temporary clerks have been employed almost constantly during the year.

Since the period of the last Report there has been constructed in Savannah, Georgia, a paper mill owned and operated by the Union Bag and Paper Company. The object of this mill for the present is to manufacture kraft paper, that is, the brown papers of the wrapping paper and paper bag type. Approx-

imately one-half of the buying radius of this mill will lie in South Carolina, including probably the Counties of Beaufort, Jasper, Hampton, Allendale, Colleton and possibly Bamberg and Barnwell, and may be extending even farther into the interior and up the Savannah River. It is understood that this Company is not buying land outright in South Carolina, but that it is contracting with property owners for long term delivery of timber from their lands. In Charleston the West Virginia Pulp & Paper Company announced early in the summer of 1936 its plan for the construction of a mill above North Charleston. Each of these mills will utilize approximately five hundred (500) cords of wood per day or the annual growth from more than five hundred (500) acres of land, even when that land is under protection and management. The West Virginia Pulp & Paper Company owns in South Carolina some 150,000 acres of forest land which has been in the process of acquisition over a period of ten years. These lands have been listed with the State Forestry Commission for protection since 1928. Their lands lie in Berkeley, Charleston, Dorchester, Colleton and Georgetown Counties, but the buying radius will in all probability be extended considerably beyond the Counties named, since it is assumed that they will retain their own lands for operation after they find difficulty in securing pulp wood from private sellers at a reasonable price. At the time this report is being written very definite rumors are in circulation to the effect that the International Paper Company is taking steps for the construction of a paper mill at Georgetown, which will mean that practically every County in the Pee Dee and Coastal areas of South Carolina, will have provided for them a market for pulp wood. The existence of these pulp mills may become a curse or a blessing to the State of South Carolina insofar as the landowners of South Carolina recognize the dangers which exist. Paper mills are coming South from the North because in the North they find themselves today in the centers of vast areas of devastation resulting to some extent at least from their own operations. They have mined their timber instead of producing timber as a crop. Cutting has been carried on without a view to reproduction. The annual cut has exceeded the annual growth. Such reproduction as has been secured, has been of inferior species and quality. Fires have added to the dev-

astation. The raw material for the paper mill is gone. Such a condition can very easily be reproduced in South Carolina. It is believed that the officials of the paper mills operating in South Carolina are going to encourage the proper handling of timber lands, to the end that they be assured of a continued source of raw material and that the conditions in the North not be duplicated. If, however, the landowners of South Carolina fail to heed that encouragement, they will cut over their forest lands clean instead of cutting the trees only at their point of financial maturity for paper pulp wood. They will cut the tall straight, most rapid growing trees and leave the stag headed, stunted trees of inferior form. They will cut the trees of the most valuable species and leave behind the inferior species which frequently are most prolific in seed production, and will thereby be most aggressive in the reseedling of the area. Under such practice it is entirely possible that over a comparatively few decades, the lower country of South Carolina will no longer rank highest among the timber producing areas of the United States. On the other hand, the landowners may heed the encouragement of the paper companies and if they do, they will first put their lands under adequate forest fire control in cooperation with the State and Federal Governments. They will sell pulp wood only from their salvaged material, that is, from thinnings, from trees of inferior species and form. They will plant up to rapid growing good species, areas which are not today restocking. There is urgent need for large scale demonstrations in forest practice along pulp wood producing lines. Our District Foresters are already laying plans for putting those demonstrations into effect, but there is a real need for a practical man to handle this program direct with the farmer and landowner in cooperation with the District Foresters and Agricultural Agents. That man to work with the farmer should be employed at the earliest possible moment to help outline a program and to assist an already over-burdened District Forester's personnel.

In addition to the possibilities in the production of wood pulp, a recent report of the Southern Forest Experiment Station, under the title of "The Quantity and Status of Naval Stores Timber in Survey Unit No. 1, South Carolina," emphasizes drastically the necessity for the need of educational work

among those naval stores operators and landowners and farmers who are operating turpentine trees for naval stores. According to this Report, practically one-half of the forest area within the ten counties covered by that Report is of the naval stores type. Seventy per cent. (70%) of the area being cut by turpentine operators, is leased land, land on which the operator is more concerned with the tree he is working than with the future production of trees of any sort. As a result of this situation, 43.4% of the trees worked, or that have been worked, are below nine inches in diameter in the face of recommendations of the National Forest Service, that ten inches represent the minimum size tree that can be conservatively worked for naval stores. 23.9% of the trees being worked within this area are under seven inches in diameter, breast high. 26% of the cups being worked today were worked by small landowners who sold the gum to the larger operators who distilled it and sold the products. There is a splendid opportunity here for a combination of conservative naval stores practice and pulpwood production. Upon the handling of these two industries, depends the future welfare of the producing power of the forest soil of lower South Carolina.

FINANCIAL

The total expenditures of the South Carolina State Commission of Forestry for the fiscal year covered by this report amounted to One Hundred and Twenty-three Thousand, One Hundred and Thirty-Seven Dollars and Sixty-Four Cents (\$123,137.64). Of this amount Sixty-Four Thousand, Four Hundred and Fifty-Nine Dollars and Sixty-Seven Cents (\$64,459.67) were received from forest protective association assessments and the Federal Government. Ninety-Eight Thousand, Six Hundred and Five Dollars and Fourteen Cents (\$98,605.14) were expended for forest protection, Seven Thousand and Forty-Three Dollars and Seventy-Seven Cents (\$7,043.77) for Production and Distribution of Planting Stock, and the balance of Seventeen Thousand, Four Hundred and Eighty-Eight Dollars and Seventy-Three Cents (\$17,488.73) for other projects, including that portion of protection and Nursery production not reimbursable, for education, State Parks, etc. In addition to the above expenditures from State and Federal appropriations and from protective association assessments, there was expended through the office of the State Forester, Three Hundred and Ninety-Two Thousand, Six Hundred and Eighty Dollars and Fifty Cents (\$392,680.50) for the pay of supervisory personnel and the purchase of materials and equipment in the CCC camps engaged in forestry work upon State and private lands. At the same time there was expended through the office of the State Forester for the same purpose, Two Hundred and Fifty-Eight Thousand, Six Hundred, and Eighty-Seven Dollars and Sixty-Nine Cents (\$258,687.69) for the camps engaged in the development of South Carolina's State Parks. No part of these two last sums was concerned with the pay of the CCC boys, their food or clothes or the cost of, or the administration of, the CCC camps themselves. These expenditures were concerned solely with that part of the program under the administration of the State Forestry Commission. Thus, as a result of the \$50,000.00 appropriation by the Legislature for forestry and park work, there was expended from other sources within the State, as a result of the existence of the Forestry Commission, Seven Hundred and Twenty-Four Thousand, Five Hundred and Five Dollars and Eighty-Five Cents (\$724,505.85). The attached statements show the sources and disposition of all funds other

than Federal Emergency monies expended by the State Forestry Commission. Later on in this report, under the headings, of "State Parks" and "Emergency Conservation Work," will be found the expenditures through this office for each of the CCC camps under our jurisdiction.

EXPENDITURES BY MAJOR PROJECTS

July 1, 1935—June 30, 1936

	State and Federal	Private	Total
Protection	\$59,511.62	*\$39,093.52	\$98,605.14
Nurseries (Camden and Georgetown)	4,772.03	2,271.74	7,043.77
Other	17,488.73	.....	17,488.73
	<u>\$95,088.82</u>	<u>\$28,048.82</u>	<u>\$123,137.64</u>

*Includes \$18,596.15 spent direct by private agencies for Fire Control under State supervision.

FINANCIAL STATEMENT

	Balance June 30, 1935	Receipts Private	Federal Reimbursement Sect. 2	Reimbursement Sect. 4	State Appropriation	Total
State Fund .....	.....	.....	.....	.....	\$50,000.00	\$50,000.00
Federal Fund	\$7,442.64	\$24,650.51	\$30,240.00	.....	.....	62,333.15
Revolving Fund	4,379.02	**8,413.05	.....	\$1,156.11	.....	13,948.18
Funds available						
during year	\$11,821.66	\$33,063.56	\$30,240.00	\$1,156.11	\$50,000.00	\$126,281.33
Expenditures State and Federal and Revolving						104,541.49
Balance						\$21,739.84
**Sale of Seedlings.						
Balance on Hand July 1, 1936:						
State						
Federal				\$13,689.55		
Revolving Fund				8,050.29		
Balance				\$21,739.84		

JULY 1, 1935—JUNE 30, 1936

STATE FUNDS:

Balance as of July 1, 1935 .....	.....
State Appropriation	\$50,000.00
	<u>\$50,000.00</u>

REVOLVING FUNDS:

Balance as of July 1, 1935	\$4,379.02
Reimbursement Section 4	1,156.11
Sale of Seedlings	8,413.05
	<u>13,948.18</u>

FEDERAL FUNDS:

Balance as of July 1, 1935	\$7,442.64
Reimbursement Section 2	30,240.00
Reimbursement for Expenditures Made .....	.88
Reimbursement for Bad Checks	22.50
	<u>24,627.13</u>
Dues Paid by Cooperators	62,333.15
Total	\$126,281.33
Expenditures	104,541.49
Balance	<u>\$21,739.84</u>

Balance:

State .....	.....
Federal Fund	\$13,689.55
Revolving Fund	8,050.29
	<u>\$21,739.84</u>

**Includes E. C. W. Sale of Seedlings.

CAMDEN NURSERY—PRODUCTION COSTS

July 1, 1935—June 30, 1936

(Does not include prorated charges for supervision, office supplies, etc.)

Expenditures:

Salaries	\$1,500.00
Wages	943.20
Freight, Express and Deliveries	142.63
Travel	21.65
Telegraph and Telephone	31.59
Repairs	96.85
Office Supplies	8.97
Motor Vehicle Supplies	68.53
Agricultural Supplies	237.43
Other Supplies	13.45
Rents	93.94
Insurance	23.95
Office Equipment	3.68
Motor Vehicle Equipment	3.00
Agricultural Equipment	199.99
Returned Checks Charged Off	9.00
Refunds on Sale of Seedlings	10.05
	<hr/>
	\$3,407.91

Receipts: (Based on Total Production of 1,548,561 Seedlings.)

Proceeds from Sale of Seedlings Produced this Year\$1,495.54

ANNUAL REPORT—FINANCIAL STATEMENT SOUTH CAROLINA

	PERSONAL SERVICE			CONTRACTUAL SERVICES				CONTRACTUAL		Office
	Salaries	Wages	Special Payments	Freight, Express and Deliveries	Travel	Telegraph and Telephone	Repairs	Printing and Advertising	Water, Heat, Light and Power	
Columbia Office	\$16,805.08	\$62.56	\$102.25	\$10.59	\$1,505.16	\$646.16	\$133.62	\$763.61	.....	\$1,988.37
Piedmont District	2,919.84	.....	.....	.....	202.00	59.63	17.70	.....	.....	45.95
Pee Dee District	2,328.91	.....	.....	.....	155.75	67.94	17.25	.....	.....	108.40
Walterboro District	2,142.94	.....	.....	.....	72.45	45.80	12.50	.....	\$13.65	57.26
Camden District	1,884.52	.....	.....	.....	317.35	78.66	.....	.....	.....	32.50
Aiken District	2,046.98	.....	.....	.....	266.10	10.10	10.07	.....	.....	22.97
Educational Project .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Camden Nursery	1,500.00	943.20	.....	142.63	21.65	31.59	96.85	.....	.....	8.97
Georgetown Nursery .....	.....	4.00	.....	12.45	.....	40.70	.....	.....	.....	14.40
Marlboro Nursery .....	.....	.....	.....	.....	10.60	.55	.....	.....	.....	.....
Aiken County F. P. A.	3,258.00	1,075.00	1.35	.....	.....	60.23	.....	33.69	.....	57.79
Barnwell County F. P. A.	1,695.84	1,100.00	.....	.....	.....	.....	.....	18.29	.....	27.08
Lee County .....	.....	.....	.....	.....	.....	.....	.....	9.29	.....	.....
Kershaw County	2,909.00	1,100.00	41.00	1.00	.....	65.66	10.25	18.29	.....	28.40
Sumter County	4,697.99	1,625.00	75.00	.....	.....	108.01	2.00	19.16	.....	67.70
Florence County	4,296.97	1,100.00	122.50	4.63	8.48	.....	1.50	18.29	.....	55.29
Georgetown County	1,925.00	550.00	60.00	.....	10.00	46.25	.....	18.29	.....	20.62
Latta F. P. A.	1,103.17	21.80	64.85	.....	2.32	.....	.....	8.03	.....	15.89
Nichols Forest P. A.	460.00	.....	12.90	.....	.....	.....	.....	2.33	.....	2.14
1st Clarendon F. P. A.	720.00	50.00	36.00	.....	.....	.....	.....	8.45	.....	7.82
Black River F. P. A.	433.50	420.00	.....	.....	.....	24.50	.....	.60	.....	1.27
Cook Tower Detection Unit	80.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Cooper Tower Detection Unit	270.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Earle Tower Detection Unit .....	.....	.....	.....	.....	.....	.....	.....	.39	.....	.62
Lanes Tower Detection Unit	220.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Aynor Tower Detection Unit	120.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Loris Tower Detection Unit	120.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Meade Tower Detection Unit	300.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Wampee Tower Detection Unit	120.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Marion-Gresham Detection Unit	130.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Brittons Neck Detection Unit	130.00	.....	.....	.....	.....	.....	.....	.39	.....	.62
Jasper County F. P. A.	660.00	300.00	24.00	.52	.....	.....	3.00	8.24	.....	12.26
Estill F. P. A.	840.00	330.00	.....	.....	.....	.....	.....	8.24	.....	7.50
Hardeeville F. P. A.	870.00	220.00	16.00	.77	.....	.....	.....	8.24	.....	7.50
Stokes F. P. A.	890.00	330.00	28.55	.77	.....	.....	.....	9.29	.....	10.50
Adams Run Detection Unit	290.00	.....	.....	.....	.....	.....	.....	.54	.....	.....
Bonneau Detection Unit	87.50	.....	.....	.....	.....	.....	.....	.54	.....	.....
Cottageville Detection Unit	260.00	.....	.....	.....	.....	.....	.....	.54	.....	.....
Oakley Detection Unit	187.33	.....	.....	.....	.....	.....	.....	.54	.....	.....
Okeetee Detection Unit	190.00	.....	.....	.....	.....	.....	.....	.54	.....	.....
Ridgeville Detection Unit	240.00	.....	.....	.....	.....	.....	.....	.54	.....	.....
Scotia Detection Unit	290.00	.....	.....	.....	.....	.....	.....	.54	.....	.....
St. George Detection Unit	240.00	.....	.....	.....	.....	.39	.....	.54	.....	.....
Aiken F. P. A. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Caesar's Head F. P. A. ....	.....	.....	.....	.....	.....	.....	.....	2.18	.....	.....
Carolina Fibre Company .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Champion Fibre Company .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Emory W. Clark Estate .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fairfield Protective Association .....	.....	.....	.....	.....	.....	.....	.....	2.33	.....	.....
Jasper F. P. A.	660.00	.....	.....	.....	.....	.....	.....	.....	.....	12.26
Kershaw F. P. A. ....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Va. P. & P. Co., Charleston .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Va. P. & P. Co., Georgetown .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Aiken State Park	4.00	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cheraw State Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Edisto Beach Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Givhans Ferry Park .....	.....	10.00	.....	.....	.....	.....	.....	.....	.....	.....
Kings Mountain Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Myrtle Beach Park	153.33	.....	.....	17.09	.....	.....	.....	.....	3.58	45.09
Oconee State Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Parris Mountain Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Poinsett State Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Table Rock State Park	225.00	.....	.....	.....	.....	3.37	.....	.....	.....	.....
Total	\$58,044.90	\$9,241.56	\$584.40	\$190.45	\$2,571.86	\$1,289.54	\$304.74	\$965.06	\$17.23	\$2,651.87

ILLINOIS STATE FOREST SERVICE CLASSIFICATIONS FROM JULY 1, 1935 TO JUNE 30, 1936

SUPPLIES					FIXED CHARGES AND CONTRIBUTIONS			EQUIPMENT						PERMANENT IMPROVEMENTS			
Office	Educational	Motor Vehicle	Agricultural	Other Supplies	Rents	Insurance	Reimbursements	Office	Household	Motor Vehicle	Educational	Agricultural	Other Equipment	Lands	Buildings	Contingent	TOTAL
1,988.37	\$12.80	\$1,796.36		\$4.07	\$13.45	\$144.97		\$399.89		\$1,862.40	\$63.27	\$746.60				\$30.00	\$27,091.21
45.95		564.14			1.00	24.70		13.96		427.60						26.36	4,302.88
108.40		499.23			250.65	24.70		3.50		507.40						24.70	3,988.43
57.26		441.22			168.75	24.08		44.73		572.82						20.64	3,616.84
32.50		301.55			85.00	26.75		240.29		643.35						25.00	3,634.97
22.97		255.46			32.00	26.66		36.93		633.02						25.00	3,405.29
	393.22				180.00					1.00	547.14	26.88					1,148.24
8.97		68.53	\$237.43	13.45	93.94	23.95		3.68		3.00		199.99				19.05	3,407.91
14.40			856.57	3.40	160.32							1,191.05			\$111.25		2,394.14
				1.65													12.80
57.79		4.50		259.72	64.00					14.20			\$344.56				5,173.04
27.08				220.38				13.90					370.92				3,446.41
																	9.29
28.40				229.26				2.69					126.76			367.92	4,900.23
67.70				261.31	10.75								44.71				6,983.61
55.29				229.06						71.98							6,327.93
20.62				170.80				20.00					471.26				3,032.51
15.89				254.13									231.55				1,639.95
2.14				88.87									221.76			8.00	573.64
7.82				89.35												7.40	911.62
1.27				2.25													882.12
.62				1.00													82.01
.62				.75													271.76
.62				1.00													2.01
.62				.75													221.76
.62				1.00													122.01
.62				1.00													122.01
.62				.75									11.99				313.75
.62				.75													121.76
.62				.75													131.76
.62				.75													131.76
12.26				111.22	10.00								26.69				1,155.93
7.50				4.64									3.79			14.50	1,208.67
7.50				101.32	10.00								17.46				1,251.29
10.50				130.30									19.62				1,419.03
				.91									1.08				292.53
				.04									1.08				89.16
				.91									1.08				262.53
				.04									1.08				188.99
				.91									.96				192.41
				.94									1.08				242.56
				.91									.96				292.41
				.04									.96				241.93
							\$624.13										624.13
							1,292.79										1,294.97
							590.42										590.42
							9.38										9.38
							62.50										62.50
							572.44										574.77
							115.55										115.55
							413.11										413.11
							3,398.83										3,398.83
							1,113.85										1,113.85
				2.16													6.16
				2.16													2.16
				2.16													2.16
				2.16													2.16
				2.16													15.06
45.09			70.00	241.22									197.82				728.13
				2.16													2.16
				2.16													2.16
				2.16													2.16
				2.16													2.16
				52.16													280.53
2,651.87	\$406.02	\$3,973.89	\$1,164.00	\$2,499.04	\$1,079.86	\$295.81	\$8,193.00	\$779.57		\$4,736.77	\$610.41	\$2,164.52	\$2,097.17		\$111.25	\$568.57	\$104,541.49

Applied Forestry and Forestry Education in South Carolina is under Mr. N. T. Barron, Assistant State Forester. Over 23,000 acres in South Carolina have been planted to forest trees during the period of this report, and 19,000,000 seedlings produced in Nurseries operated by the Commission. Thousands have been reached through fair exhibits, news items, and talks, and over 1,100 boys in the Vocational Agricultural High Schools of the State studied forestry in the class room and put into actual practice the principles learned there upon the 10 acre demonstration forests managed by the School.

APPLIED FORESTRY

Twenty-three million forest tree seedlings were planted in South Carolina during the winter season of 1935-36. Eighty-two per cent, or 18,536,260 of the total forest tree seedlings planted were produced in the three nurseries operated by the State Forest Service, also, several hundred thousand forest tree seedlings were supplied to out of State agencies from these same nurseries. The State operated nurseries could not supply all the demand for the various agencies as some of them required more seedlings of specific species than could be supplied and others required species not grown in the State nurseries.

The three nurseries operated by the State Forest Service during the past fiscal year produced a total of 19,772,711 forest tree seedlings of principally the pine species. Table No. 1 on page 27 shows the production for each of the nurseries by species.

Georgetown Forest Tree Nursery (Georgetown County), Camden State Forest Tree Nursery (Kershaw County) and the Cleveland Nursery (Greenville County) were three nurseries producing last year. A fourth nursery of one acre at Bennettsville (Marlboro County), did not produce sufficient stock to report. This latter nursery was created only for an emergency period by the Marlboro County F. E. R. A. in cooperation with the State Forest Service. The pine seed, longleaf, was not planted until June and a "damping-off" disease destroyed practically all of the seedlings. The Georgetown Nursery produced 17,141,150 forest tree seedlings which were used mainly on Emergency Conservation Work projects and other Federal projects within the State. Table No. 2, page 28 shows the production and distribution by species of trees from the Georgetown Nursery.



Part of a 1,000 acre slash pine plantation planted in 1932. Photographed September 1936—Allendale County.

1,548,561 forest tree seedlings were produced at the Camden Nursery. The production was principally distributed to farmers, timberland owners and for demonstration plantings on State Parks and Forests. Table No. 3, page 29 shows the details of distribution from this nursery.

1,083,000 black locust seedlings were produced at the Cleveland Nursery by the State Forest Service for the Soil Conservation Service, the seed for this nursery having been supplied by the latter Service.

Additional forest tree plantations and refills were made on a number of the State Parks. This was the second year for planting on such areas. Table No. 4, page 30 shows the quantities by species used on the State Parks. Forest tree plantations are being established on State Parks for two reasons: Educational purposes and to establish new forests on the open areas not needed for playgrounds on the Parks or other such recreational and landscaping purposes.

An interesting feature of the reforestation work in the State during the last fiscal year was that of the Educational Civilian Conservation Corps forest tree planting project. 1,849,250 forest tree seedlings, principally pine, were planted on private lands by CCC boys in those counties in which forestry CCC camps were located. Approximately 1,500 CCC boys planted each 1,000 or more forest tree seedlings. This project was supervised by the State Forest Service in cooperation with the forestry Emergency Conservation Work project. Planting was done on private lands (depleted farm lands or devastated cutover lands) within a twenty-five mile radius of eight State CCC camps. 181 landowners, principally farmers, availed themselves of this cooperative project. The purpose of this project was three-fold:

1. To instruct CCC boys in forest tree planting.
2. To establish demonstration forest tree plantings on as many sites as possible along well traveled highways for the benefit of the public.
3. To render a service at a minimum cost to as many landowners as possible who desire to reforest depleted farm lands and cutover lands not having sufficient seed trees left on them to reproduce a natural stand of trees. The 181 landowners

signed an agreement, prepared by the State Forest Service, to protect the planting and the resulting stand of trees from fire, trespass, and other destructive agents insofar as practicable, and further, to allow the trees which were planted to grow to a size large enough for merchantable forest products under a conservative system of forest land management as determined by the Forest Service.

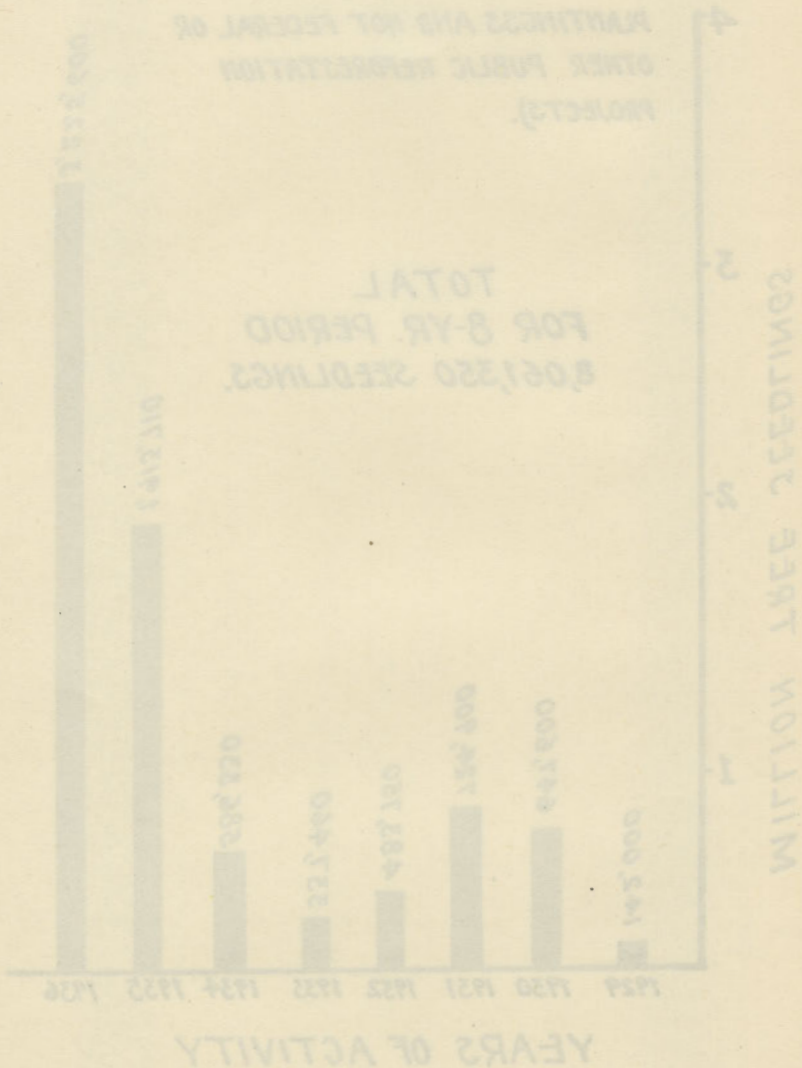
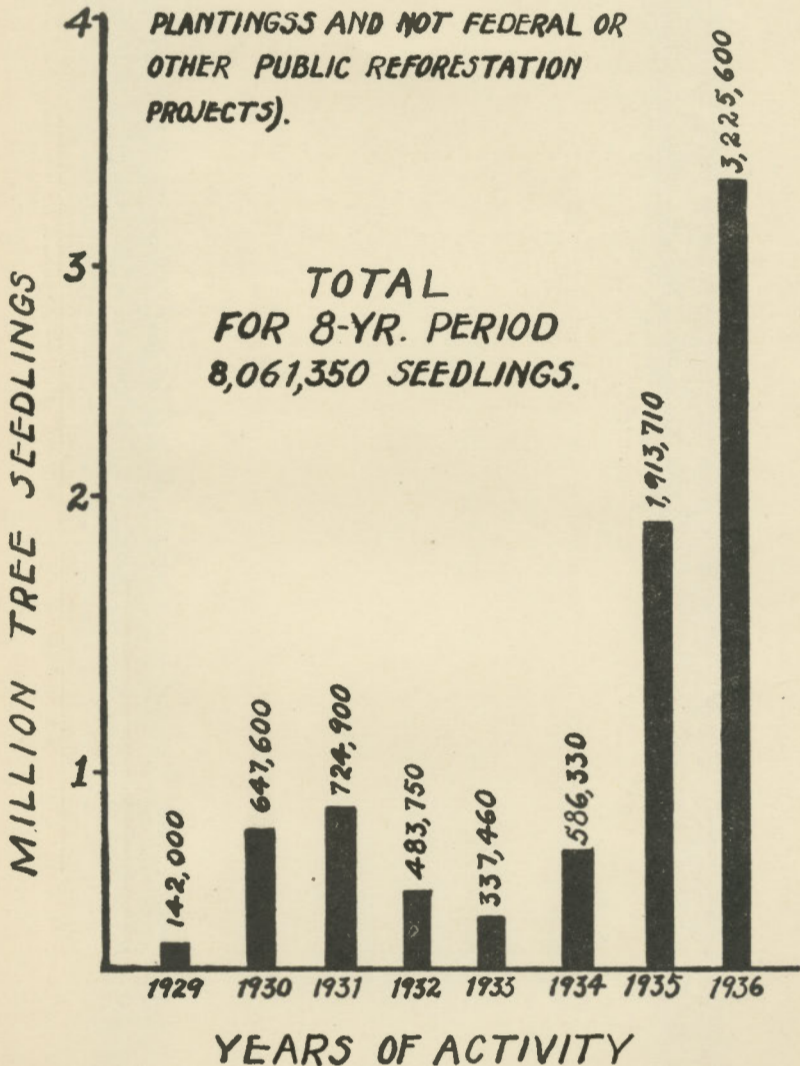
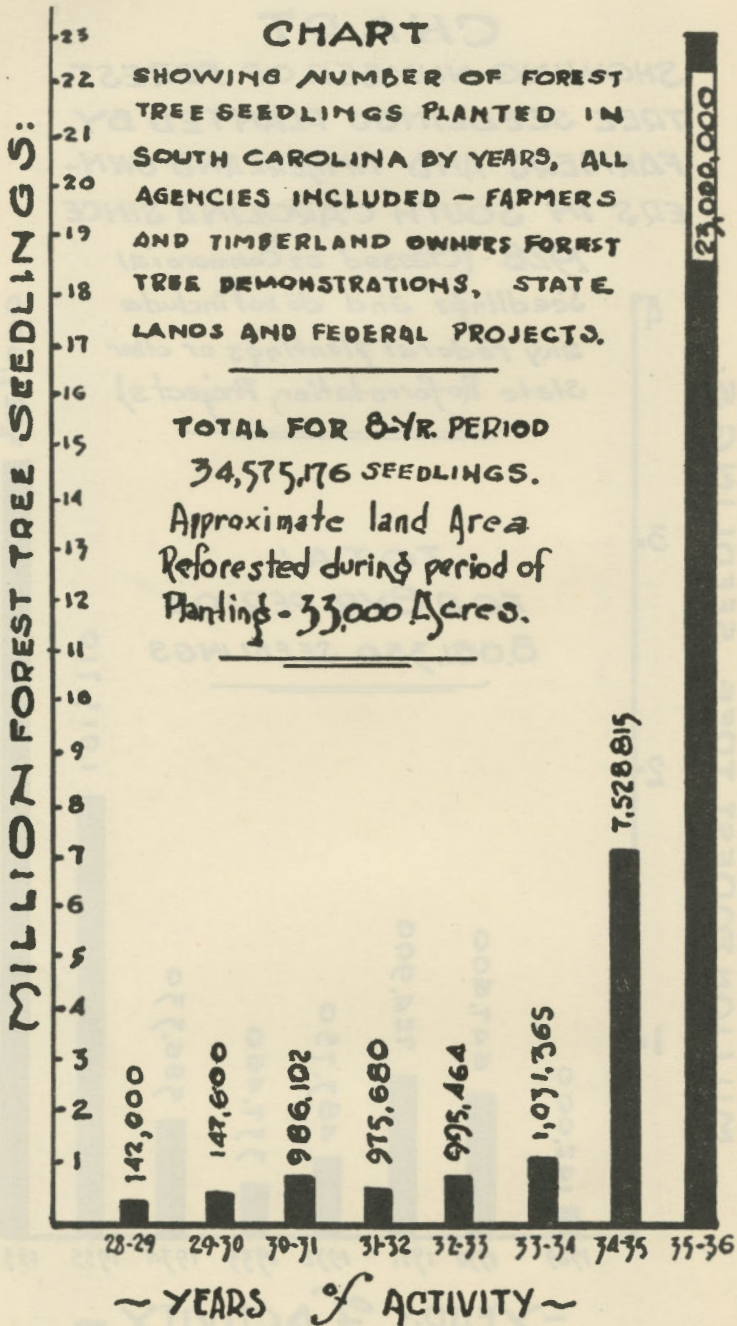


CHART
SHOWING NUMBER OF FOREST
TREE SEEDLINGS PLANTED BY
FARMERS AND TIMBERLAND OWN-
ERS IN SOUTH CAROLINA SINCE

1928 (INCLUDE "COMMERCIAL
PLANTINGS AND NOT FEDERAL OR
OTHER PUBLIC REFORESTATION
PROJECTS).



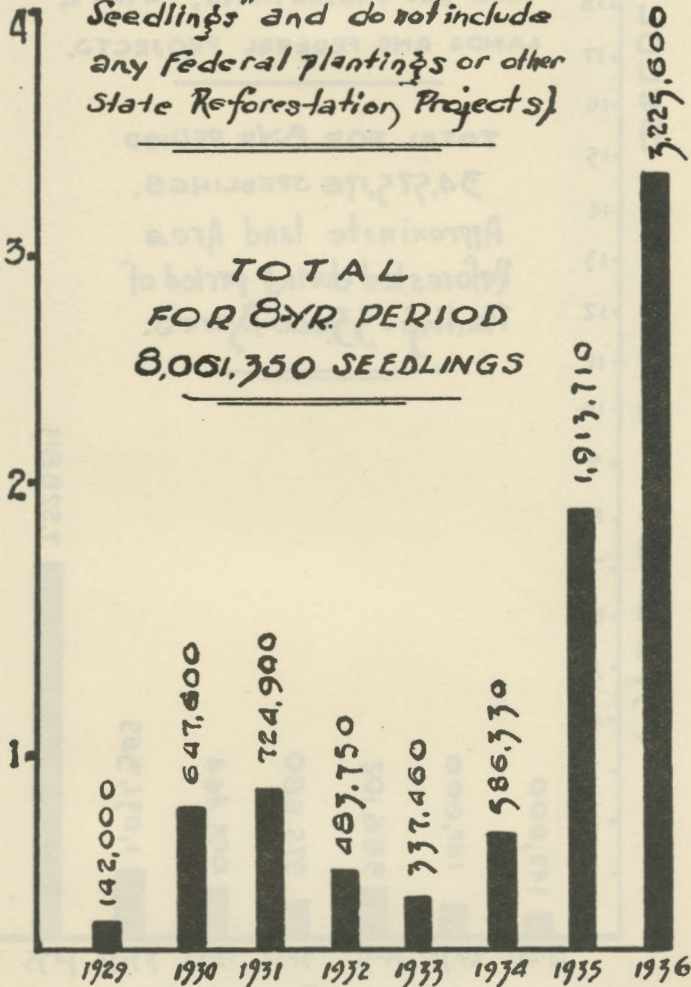


CHART

SHOWING NUMBER OF FOREST
TREE SEEDLINGS PLANTED BY
FARMERS AND TIMBERLAND OWN-
ERS IN SOUTH CAROLINA SINCE

1928. (Classed as "Commercial
Seedlings" and do not include
any Federal plantings or other
State Reforestation Projects)

MILLION FOREST TREE SEEDLINGS:



- YEARS of ACTIVITY -

The Forest tree seed used in South Carolina nurseries was collected by the Civilian Conservation Corps camps under the direction of the State Forest Service. Practically all of the seed used was collected in South Carolina with the exception of the black locust seed and small amounts of yellow poplar, ash and shortleaf pine seed. The following table shows the number of bushels of pine cones by species collected in South Carolina during the period of this report:

Species	No. of Bushels of Cones
Longleaf Pine	4,226
Loblolly Pine	2,816
Shortleaf Pine	173
Slash Pine	1
Jack Pine	5
<hr/>	
Total	7,221 bushels

The pine seed was extracted from the cones and any quantities of seed not needed for immediate nursery use was carefully packed in sealed cans or bags and put in cold storage for future needs. Table No. 5, page 31 shows the amounts of forest tree seed handled by the State Forest Service during the period of this report.

Enlarged reforestation projects during the past fiscal year by the State Forest Service, Soil Conservation Service, Resettlement Administration and other Emergency Conservation Work projects resulted in more expansion of State forest nurseries over the year 1934 as follows:

1. The Georgetown Nursery was enlarged by seven acres; which brought the total acreage of this nursery up to forty-two acres.
2. The ten acre Cleveland Nursery in Greenville was established as a temporary nursery for locust only.
3. The Camden Nursery production was increased 41%.

The chart on page 23 shows the number of forest tree seedlings planted in South Carolina from 1928 to 1936 and is an indication of the increased interest in reforestation. The chart on page 24 shows the number of forest tree seedlings sold only to farmers and timberland owners during the period 1929

to 1936. This chart does not include any Civilian Conservation Corps reforestation projects or other Federal projects.

Form No. 6 on page 32 shows the complete distribution by species into counties of all forest tree seedlings produced in the State Forest Service nurseries during the past fiscal year.

Attached is a detailed report on certain research forest tree plantations having been established by the South Carolina State Forest Service beginning in the year 1932.

Also attached is a report on woodland and reforestation examination reports made during last fiscal year.

TABLE NO. 1
FOREST TREE NURSERY PRODUCTION FROM S. C. STATE OPERATED NURSERIES
Winter 1935-36

Nursery	Longleaf	Slash	Loblolly	Locust	Walnut	Grand Total for Each Nursery
Georgetown	11,338,500	716,400	4,969,500	96,750	....	17,141,150
Camden	364,941	758,916	376,262	.....	48,442	1,548,561
Cleveland .....	.....	.....	.....	1,083,000	....	1,083,000
Total	11,703,441	1,475,316	5,365,762	1,179,750	48,442	19,772,711

Remarks:

The production at the Georgetown Nursery for 1935 represents an increase of 71% over that of 1934.

The production at the Camden Nursery for 1935 represents an increase of 42% over that of 1934.

TABLE NO. 2
 GEORGETOWN FOREST TREE NURSERY—GEORGETOWN, S. C.
 PRODUCTION—17,141,150 FOREST TREE SEEDLINGS
 Summary of Distribution (December 1935 to March 1936)

Receiving Agency	Species and Number				Total for Each Agency	Where Planted
	Loblolly Pine	Longleaf Pine	Slash Pine	Black Locust		
Soil Conservation Service South Carolina	4,634,500	60,000	338,650	....	5,033,150	Piedmont Section, South Carolina
Soil Conservation Service Georgia .....	.....	2,275,000	.....	....	2,275,000	Georgia SCS Projects
Resettlement Administration South Carolina .....	.....	6,500,100	.....	....	6,500,100	Sumter and Chesterfield Counties, S. C.
S. C. State Parks and Forests and E. C. W. Projects	355,000	2,503,400	377,750	96,750	3,332,900	All Over the State
GRAND TOTALS	4,989,500	11,338,500	716,400	96,750	17,141,150	

Remarks:

The production of 17,141,150 forest tree seedlings at this nursery represents an increase of 71% over the year 1934.

TABLE NO. 3
CAMDEN FOREST TREE NURSERY—CAMDEN, SOUTH CAROLINA
PRODUCTION—1,548,561 FOREST TREE SEEDLINGS
Summary of Distribution (December 1935 to March 1936)

Distribution	Species and Number				Totals	Remarks
	Slash Pine	Longleaf Pine	Loblolly Pine	Black Walnut		
Commercial Sales	477,350	98,000	126,750	21,450	723,550	Planted by Farmers and timberland owners in South Carolina
Demonstration & Experimental Plantings	49,966	6,941	19,512	8,142	84,561	Planted by Schools, Civic Clubs and County Demonstra- tions in South Carolina
State Lands	93,000	235,000	120,000	14,750	462,750	Planted on State Forest Parks in South Carolina
Emergency Conservation Work & Others	138,600	25,000	110,000	4,100	277,700	Used by Soil Conservation Service, U. S. Forest Service, Resettlement Administration & Civilian Conservation Corps Educational Project in S. C.
GRAND TOTALS	758,916	364,941	376,262	48,442	1,548,561	

CLEVELAND FOREST TREE NURSERY—CLEVELAND, S. C.
PRODUCTION—1,083,000 BLACK LOCUST SEEDLINGS (ONLY)
Summary of Distribution (December 1935 to January 1936)

Soil Conservation Service	1,073,000—Planted in Piedmont Section of South Carolina
State Lands	10,000—Planted on Paris Mountain State Park, Greenville County
TOTAL	1,083,000

TABLE NO. 4
DEMONSTRATION FOREST TREE PLANTINGS ON STATE FOREST PARKS IN SOUTH CAROLINA—FISCAL YEAR (1935-36)
Total Number Planted, 1,221,650

Name of State Forest Parks	Species and Number								Totals
	Slash Pine	Longleaf Pine	Loblolly Pine	Shortleaf Pine	Black Locust	Black Walnut	Yellow Poplar	Chestnut	
Givhans Ferry	150,000	200,000	.....	....	....	....	....	....	350,000
Poinsett	79,000	136,500	.....	....	....	....	....	....	215,500
Cheraw .....	.....	150,000	.....	....	....	....	....	....	150,000
Chester	2,000	2,500	160,000	....	32,600	5,000	....	....	202,100
Aiken	100,500	109,000	.....	....	4,000	4,000	....	....	217,500
Paris Mountain	10,000	5,000	10,000	15,000	26,000	9,750	10,000	*800	86,550
GRAND TOTALS	341,500	603,000	170,000	15,000	62,600	18,750	10,000	800	1,221,650

Note: The list does not include all of the State Parks.

*The 800 Chestnut seedlings planted on Paris Mountain State Park represent several strains of supposedly "blight" resistant chestnut trees. They were supplied by the Soil Conservation Service to the S. C. State Forest Service and have been planted for experimental purposes.

TABLE NO. 5

STATEMENT OF FOREST TREE SEED HANDLED BY STATE FOREST SERVICE
During Period July 1, 1935 to June 30, 1936

Seed Species—Amounts in Pounds

	Longleaf Pine	Slash Pine	Loblolly Pine	Shortleaf Pine	Yellow Poplar	Ash	Grand Totals
Amt. of Seed on Hand July 1, 1935	5,749	1,643	3,254	none	none	none	10,646 lbs.
*Amount of Seed Purchased	none	none	none	108	300	100	508 lbs.
Amount of Seed Collected	2,954	none	1,991	51	none	none	4,996 lbs.
TOTALS....	8,703	1,643	5,245	159	300	100	16,150 lbs.
Amount of Seed Sowed in S. C. State Nurseries	7,317	391	1,623	145	300	100	9,876 lbs.
Bal. of Seed on Hand June 30, 1936	1,386	1,252	3,622	14	none	none	6,274 lbs.

* "Amount of Seed Purchased"—Seed shown under this heading was not actually purchased, but contributed by the Soil Conservation Service to the State Forest Service in order to produce additional seedlings for that agency.

**DISTRIBUTION OF SEEDLINGS PRODUCED BY COMMISSION OF FORESTRY IN THE
COUNTIES OF SOUTH CAROLINA—1935-36**

County	Slash	Longleaf	Loblolly	Walnut	Locust	Totals
Abbeville	10,000	.....	321,025	.....	.....	331,025
Aiken	152,700	371,200	2,500	4,500	4,000	534,900
Allendale	58,000	222,000	.....	250	1,000	281,250
Anderson	16,012	11,062	693,049	6	79,810	799,939
Bamberg	5,000	10,000	5,000	.....	.....	20,000
Barnwell	4,000	149,000	.....	.....	.....	153,000
Beaufort	101,900	.....	.....	.....	.....	101,900
Calhoun	2,400	.....	.....	.....	2,000	4,400
Cherokee	3,000	3,000	310,025	.....	100,810	416,835
Chester	46,300	2,500	535,075	5,500	32,600	621,975
Chesterfield	151,700	3,313,550	2,250	3,000	.....	3,470,500
Clarendon	43,500	64,500	.....	.....	.....	108,000
Colleton	63,000	45,500	.....	.....	.....	108,500
Darlington	21,000	40,700	.....	5,000	500	67,200
Dillon	6,600	5,000	300	.....	1,000	12,900
Dorchester	150,000	200,000	.....	.....	.....	350,000
Edgefield .....	.....	1,000	.....	.....	.....	1,000
Fairfield	115,000	10,000	400,025	.....	.....	525,025
Florence	22,430	49,215	5,280	.....	.....	76,925
Georgetown	21,200	20,000	.....	.....	.....	41,200
Greenville	10,100	5,100	39,100	13,050	101,860	169,210
Greenwood	34,000	5,000	401,025	.....	155,810	595,835
Hampton	67,000	33,500	.....	.....	.....	100,500
Horry	1,000	20,000	.....	.....	.....	21,000
Jasper	560	.....	.....	.....	.....	560
Kershaw	36,500	191,050	22,000	.....	.....	249,550
Lancaster	10,000	10,000	300,425	3,000	70,810	394,235
Laurens	1,000	.....	344,025	1,000	.....	346,025
Lee	1,000	21,000	.....	.....	.....	22,000
Lexington	5,000	34,000	.....	.....	.....	39,000
Marion .....	.....	1,000	.....	.....	.....	1,000
Newberry	68,000	10,000	489,925	.....	106,810	674,735
Oconee	600	.....	59,000	.....	8,000	67,600
Orangeburg	11,600	22,200	.....	500	6,000	40,300
Pickens	8,000	.....	242,525	.....	86,810	347,335
Richland	15,000	76,400	60,000	.....	.....	151,400
Saluda	1,000	2,500	3,000	.....	3,000	9,500
Spartanburg	1,000	10,600	415,974	4,400	55,110	487,084
Sumter	227,200	3,517,450	21,000	7,400	1,700	3,774,750
Union .....	.....	.....	450,525	.....	20,810	471,335
Williamsburg	51,000	2,000	.....	.....	.....	53,000
York	39,950	13,200	1,059,323	.....	352,810	1,465,283
Totals	1,583,252	8,493,227	6,182,376	47,606	1,191,250	17,497,711

Research Work

Research work in forestry, in general, has been carried on by the National Forest Service through the Forest Experiment stations of that Department. The lack of personnel within the organization of those stations, through shortage of funds and the tremendous territory covered by each, limits to a very large degree the number of projects which can be undertaken by them. It has long been felt necessary, therefore, that some research work along certain lines be undertaken by the Forestry Commission of South Carolina. From time to time, therefore, the Commission has established plots designed to answer several questions. These plots are in reality of the semi-research nature, in that, no attempt is made to go into the program along highly scientific lines, and in some cases an effort is made to combine demonstration with research work. Some forty Vocational Agricultural schools are today maintaining plots of various sorts. Some of those are fire plots in which one site is burned over each year, the other site carefully protected. Others are thinning plots where every tree is numbered and the annual increment carefully measured each year, and contrasted with similar areas of unthinned trees. In addition to the Vocational Agricultural school plots, other research areas have been set up as follows:

1. At the Sand Hills Agricultural Experiment Station near Pontiac, S. C., the four important species of Southern Pine were planted beneath scrub oak, each pine under three different systems of scrub oak treatment. For each species the scrub oak was cut away completely in one case; in a second case the tree was hacked and its top forced to the ground; and in the third, the scrub oak was not disturbed but the trees were planted beneath it.

2. On the Coe Plantation in Colleton County another research area was laid out for the purpose of determining the best spacing for longleaf pine for assistance in reforestation methods. In one area the trees were planted six feet apart in the rows with the rows six feet apart. In the second plot the trees were planted four feet apart in the rows with the rows four feet apart. In a third plot the trees were planted eight feet apart in the rows with the rows eight feet apart.

3. On the McTeer Plantation in Beaufort County a research plot similar to No. 2, was established, using slash pine instead of longleaf. The same spacing was used in the rows. The idea in all of these plantations is to determine the proper spacing by keeping careful record of the growth of the trees and the age at which the growth starts to fall off as a result of overcrowding.

4. The Rosemont Plot was established on the Rosemont Plantation in Laurens County and is very similar to Nos. 2 and 3, except that loblolly and shortleaf pine was used and that small areas of slash pine and longleaf pine were planted to determine their suitability for use on the Cecil clay hills of the Piedmont.

5. The Guess Research Plot was located upon the Guess Plantation in Bamberg County, S. C., and was very similar to the others except that slash pine only was used in planting and a different spacing was used. Here trees were planted in one plot, 15 feet apart in the rows with the rows 15 feet apart; another with the trees 11 feet apart in the rows and the rows 11 feet apart; another with trees $7\frac{1}{2}$ feet apart in the rows with the rows $7\frac{1}{2}$ feet apart, and a fourth plot with trees $3\frac{3}{4}$ feet apart in the rows with the rows $3\frac{3}{4}$ feet apart.

6. In the Graniteville Research Plots in Aiken County, S. C., in the year 1934, a more elaborate research plot was laid out to determine the best treatment of scrub oak where reforestation was desired upon sand hill scrub oak lands. Under this planting scrub oak was given thinning treatment and under-planted for each treatment with longleaf pine, slash pine and black locust.

7. The Ansell Research Plots on the Ansell Plantation in Pickens County was a Research and Demonstration of methods of utilizing worn out farm lands for timber production, using green ash spaced on one plot eight feet by ten feet, on another plot six feet by eight feet, on another plot five feet by five feet, and on another plot spacing trees eight by eight, and alternating the green ash with black locust. A fifth plot was here established with trees spaced eight feet by ten feet with alternate rows of green ash and black locust. A sixth plot was green ash spaced six feet by six feet. A seventh plot was black locust spaced four by four feet; and an eighth plot was green ash spaced six by six feet.

8. The Givhans Ferry State Park Research Plot included approximately ten acres in which alternate rows of slash pine, black walnut, green ash, red gum, black locust and yellow poplar were planted after the manner of mixed hardwood and pine forest.

9. The Ninth Research Plot is a demonstration research forest thinning made on the property of George A. Epting, Newberry, R. F. D., No. 3, in a wood lot consisting of approximately three and three-fourth acres of pure loblolly pine about 15 years of age. The object of this growth was to determine the best spacing for trees of that age. Two different species were used in the thinnings. One area was thinned so that trees were left approximately six feet apart; the other area so that trees were left approximately eight feet apart. A third plot was left unthinned as a check plot with which to compare the annual growth of all trees upon the other two thinned areas. It was the desire of the owner (and this desire is prevalent among most timber land owners) to have his stand opened up so as to permit access to remove pine straw and to increase growth to the maximum, but not to a sufficient density that weeds and grasses would come in to the stand. This plot is to be measured this year.

Woodland and Reforestation Examinations

Woodland examinations were made which covered 17,570 acres. These examinations were made by the District Foresters at the request of farm woodland owners and timberland owners who desired information as to the proper methods of handling their timbered properties. Two types of examinations were made, namely: Extensive examinations and (2) Intensive examinations. The extensive examinations were made in those cases where the property owner desired specific information on what procedure to take in thinning a young pine stand or what cutting practices to follow to improve an older stand, or what system of fire protection to use.

Intensive examinations were made where the property owner desired a reconnaissance survey of his whole property to determine what areas should remain in forest land or those open areas which should be forested and how they should best be handled. These examinations involved sketches of the property

and lengthily written reports. An example of this type of examination was made during the past fiscal year on the John de la Howe School properties in McCormick County. The examination covered the entire property of the school of 1,800 acres and a very intensive survey was made by the South Carolina State Forest Service in cooperation with the Appalachian Forest Experiment Station. The purpose of the examination was to gather forest data with which to make a twenty year management plan of the 1,100 acres to determine the amounts of wood products to remove yearly for the best utilization of the forest and still keep it in a good useful growing condition. The 1,100 acres of forest land is timbered mostly with virgin and second growth stands of principally shortleaf pine. The State Forest Service will act in advisory capacity to the School on any matters dealing with the management of these timbered acres.

Two hundred and eighty-five examinations were made on farm properties and timberland properties where the owners desired to reforest or plant in forest tree seedlings. Over 5,000 acres were covered in these examinations in 37 counties of the State.

PUBLIC RELATIONS

Vocational Agricultural Forestry Project

This program was started in 1931 by the State Forest Service in cooperation with the State Department of Education through its division of Vocational Agriculture.

During last school year 1,103 boys enrolled in the Vocational Agriculture classes of 41 high schools of the State to study forestry.

The principle objective of this program is to teach farm boys the elementary, but fundamental principles of forestry practices that have practical and economical application for the better handling of farm woodlands. The teaching of this course is done by the Vocational Agricultural Teacher in the classroom and principles learned there are put into practice on ten-acre demonstration forests or sample plots. The photograph on page 38 shows a class of vocational agricultural students thinning out a dense loblolly pine stand on the Hillcrest School Forest, Sumter County.

The following table shows the number of boys taking forestry, doing "home forestry" project work, visitors to projects and adults doing forestry work as result of contact with the program:

1. Number of schools handling project	41
2. Number of boys taking forestry course	1,103
3. Number of boys taking home forestry projects	427
4. Number of visitors to school forestry projects	1,160
5. Number of adults who did forestry work as a result of school forestry	51

The "home forestry" project work is one of the most important parts of this program. A total of 427 boys took home projects and 358 completed them. The following table shows the four types of "home forestry" projects:

Seed Beds (for raising forest tree seedlings)	121
Forest Tree Plantations	21
Fire-breaks (raked or plowed protection strips around for- ested areas)	52
Improvement Cuttings	164

To stimulate interest in the course the State Forest Service last school year gave cash prizes to an up-state and low-state school having done the best school forestry work; cash prize to one out-

standing Vocational Agriculture teacher in the State having taught the best work in forestry and one up-state and one low-state boy having done the best "home forestry" project work are awarded an educational trip outside of the State. Due to the keen competition among schools and teachers this last year it was found necessary in the judging of projects to award first and second prizes to two—up-state schools, two low-state schools and two teachers,—one from the up-state and one from the low-state. The following table gives the names and ratings:



Vocational agricultural school boys practice forest thinning upon demonstration school forest to provide revenue, remove inferior tree species and increase growth of remaining trees.—Hillcrest School, Sumter County.

Schools:

- Up-State—1st place—Chester High School.
- Up-State—2nd place—Lexington High School.
- Low-State—1st place—Walterboro High School.
- Low-State—2nd place—McClellanville High School.

Teachers:

- Up-State—R. D. Poore—Walhalla High School.
- Low-State—W. H. Wooten—Andrews High School.

Boys:

- Up-State—Wesley Wingate—Rock Hill High School.
- Low-State—Henry Hudson—Walterboro High School.

The interest in this course has increased, especially during the last two years, and now there are approximately ten additional schools requesting that the State Forest Service start them on this program as soon as possible.

Fair Exhibits

Eighteen forestry exhibits were displayed at the State Fair and County Fairs during the Fall season of 1935. These exhibits were displayed at the following fairs. State Fair, Columbia; Spartanburg, Anderson, Rock Hill, Union, Florence, Sumter, Walterboro, Charleston, Orangeburg, Darlington, Greenwood, Laurens, Pickens, Bishopville, Camden, Greenville and Bennettsville.

The number of fairs at which forestry exhibits were shown was an increase of six over the year 1934.

The Civilian Conservation Corps assisted in the construction of the exhibits under the supervision of the State Forest Service. Two types of exhibits were mainly shown—"Woods Products Exhibit" and "Fire Protection Exhibit." The latter exhibit was a specially prepared relief map of South Carolina depicting the three different forest protection systems, namely: County Units, Association Units and Detection Units. The different units being shown in various colors. Miniature fire towers accurately located on the map served to show the tower system. A mechanically operated revolving drum, placed back of the map, had written statements explaining the cooperative forest fire protection system.

Lectures and Radio Talks

Seventy-five lectures were made by the State Forest Service personnel this past fiscal year to farm organizations, civic and service clubs, schools and over radio. Several of the lectures were illustrated using slides on various phases of forestry and historical trees of South Carolina. Talks were given on the new State Parks and Forests.

The radio talks were made from Stations, WIS, Columbia; WFBC, Greenville, WCSB, Charleston and WBT, Charlotte, North Carolina.

Plans are under way to provide facilities for an intensive visual education program of forestry and State Park motion picture lectures throughout the State this year.

News Releases and Publications

Over 200 articles on various phases of forestry and State Park work in South Carolina were released to newspapers in the State and out of State press by the South Carolina State Forest Service.

This number of news releases represented a 100% increase over the year 1934.

Two important publications were issued by the State Forest Service this past fiscal year: A "State Park" bulletin listing the names, locations, development features and purposes of the Parks being developed in the State.

The other publication being a booklet,—“The South Carolina Civilian Conservation Corps Forester.” This publication is to be used in the educational program in the State supervised CCC camps and was prepared by Emergency Conservation Work and published by the State Commission of Forestry.

Leaflets were published on four radio talks made by staff personnel of the State Forest Service. Subjects covered in these leaflets are: “The Economic Aspects of Forestry in South Carolina,” “Forest Fire Protection in South Carolina,” “State Parks in South Carolina” and “Reforestation in South Carolina.”

11,000 forest fire posters were printed in cooperation with the various forest protective associations cooperating with the State Forest Service.

Forestry Essay Contest

“Forestry Phrase” contests were conducted in 409 grade schools and high schools. These contests were largely conducted in white and colored schools within or around Cooperative Forest Protection Units. Separate contests were held for white and colored schools.

Pupils in grades from the sixth through the eleventh were eligible for participation in the contest. The contest was based on the words "Prevent Woods Fires" and another "Save the Forests." Each letter in these words was used as the first letter of the first word in a phrase of not less than three words and not more than five words. It required that the phrases refer to forests, forestry, or the conservation of forest resources. The contestants were judged on the basis of subject matter, originality, neatness and legibility.

Distribution of Forestry Literature

Over 50,000 pieces of forestry literature were distributed to individuals, various organizations, and schools principally within the State. This literature consisted of the Forestry Commission Annual Reports, State Park leaflet, printed radio addresses on different subjects of forestry in South Carolina, Conservation bulletins, "Stop Woods Fires" posters, Reforestation bulletins and others.

There were over 5,000 copies of the "State Parks" bulletin distributed both within the State and several States both in the South and North.

Over 5,000 forest fire posters were distributed principally within the Forest Protection Association units.

Forest Protection in South Carolina is handled by W. C. Hammerle, Assistant State Forester. His work is concerned with organizing groups of landowners into cooperative associations, the preparation of fire plans and budgets for each area, the collection of assessments, and the supervision through the District Foresters of the more than 500 individuals upon these areas who are employed in whole or part time in forest fire control.

The practicability of forest fire control in South Carolina is attested to by the fact that only 1.38% of the more than two and one-half million acres under cooperative fire control were burned over during the fiscal year.

FOREST FIRE PROTECTION

Area Under Protection

Cooperative forest fire protection work was provided on approximately one-fourth of the total forest area of South Carolina during the fiscal year. This represents the largest area under organized protection since cooperative protection work was initiated by the State Commission of Forestry in 1928.

At the beginning of the fiscal year 1935-36, there were 1,000,000 acres of forest land receiving intensive fire protection and an additional 500,000 acres receiving detection and reporting service only. In protecting this area there were organized under the jurisdiction of the Commission of Forestry sixteen (16) protective associations and eleven detection units. A total of four hundred and fifty-five (455) timberland owners and one county (Sumter) were cooperating financially with the Federal and State Governments in protecting this area.

During the year, five counties—Aiken, Barnwell, Florence, Georgetown, and Kershaw—entered county-wide forest fire protection work. As a result of this, five of the existing private protective associations were absorbed into the county-wide protective units. However, three of these old associations continued cooperation with the Commission for the purpose of constructing fire breaks and providing more intensive protection for their holdings. The actual forest area under protection during the fiscal year was 2,561,702 of which 2,367,692 acres were given intensive protection and 194,010 acres received extensive protection in the form of detection and reporting service to landowners. A total of six counties and 293 landowners in twenty-seven (27) units cooperated financially to the extent of \$33,861.09 in providing this protection service.

Protective Organization Personnel

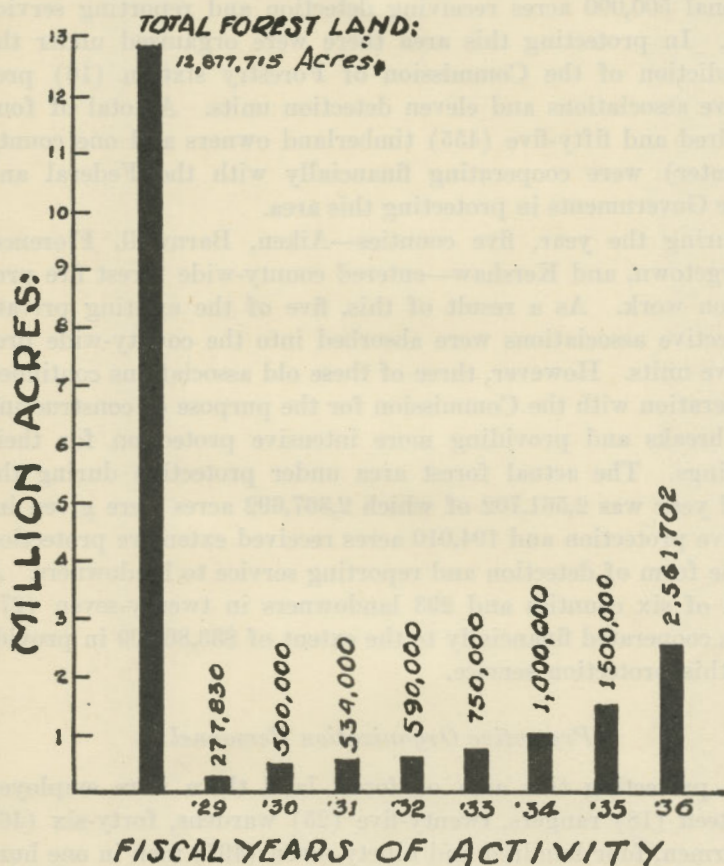
In protecting this area of forest land there were employed eighteen (18) rangers, twenty-five (25) wardens, forty-six (46) towermen, four hundred and ninety-seven (497) men in one hundred and sixty (160) retainer fee crews, and forty-one (41) men in nine (9) flexible fire fighting crews—making a total of 552 men actively engaged in fire protection work. In addition, 453 men were signed up in volunteer fire fighting crews on the va-

PROGRESS CHART

FOREST LANDS IN SOUTH CAROLINA

UNDER

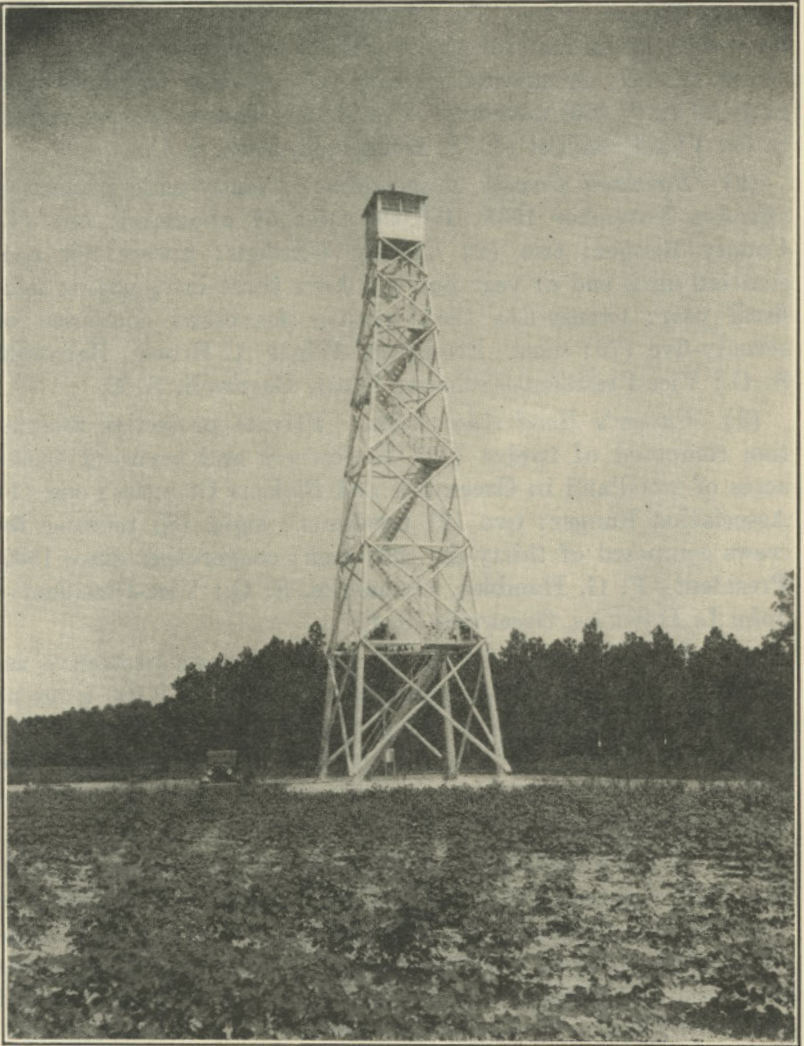
ORGANIZED FOREST FIRE PROTECTION



rious units. Cooperating landowners also furnished their own employees without additional cost. Details as to the employment of these men by protective units are given in the paragraphs dealing with the individual units.



The results of 6 years of cooperative forest fire control. Part of a ten thousand acre tract of the Carolina Land Co. in Jasper County enlisted in the Jasper protective association.



90 Ft. Wood (Cypress Pole) Tower—Sumter County

Note: Secondary tower used during periods of low visibility.

Existing Protective Organizations

(1) *Aiken County Association*: County-wide protection effective November 1935; 477,640 acres of woodland; one (1) County Ranger; three (3) County Wardens; three (3) towermen—two additional towermen will be employed next year at towers recently constructed; twenty (20) retainer fee crews composed of sixty (60) members. President—Monson Morris, Aiken, S. C.; Vice-President—E. P. Henderson, Bath, S. C.

(2) *Barnwell County Association*: County-wide protection effective November 1935; 166,626 acres of woodland; one (1) County Ranger; two (2) County Wardens; towers not constructed until end of year but will have three in operation next fiscal year; twenty-five (25) retainer fee crews composed of seventy-five (75) men. President—Edgar A. Brown, Barnwell, S. C.; Vice-President—Solomon Blatt, Barnwell, S. C.

(3) *Caesar's Head Association*: Private protective association composed of twelve (12) landowners and covering 43,467 acres of woodland in Greenville and Pickens Counties; one (1) Association Ranger; two (2) towermen; eight (8) retainer fee crews composed of thirty-six (36) men; cooperating since 1932. President—F. G. Hamblen, Greenville, S. C.; Vice-President—John L. Hawkins, Greenville, S. C.

(4) *Carolina Fibre Co. Association*: Private protective association composed of one member and covering 9,500 acres of woodland in Williamsburg County; two (2) wardens; one (1) towerman; company's woods and farm employees form fire fighting forces; cooperating since the fall of 1928. President—P. H. Rogers, Hartsville, S. C.

(5) *Estill Association*: Private protective association composed of seventeen (17) members and covering 21,302 acres of woodland in Allendale and Hampton Counties; one (1) Association Ranger; one (1) towerman; six (6) retainer fee crews composed of eighteen (18) men; cooperating since the fall of 1933. President—W. L. Rhodes, Estill, S. C.; Vice-President—W. C. Bryan, Fairfax, S. C.

(6) *Fairfield Association*: Association comprising one school district in Fairfield County at Jenkinsville and protecting 28,336 acres of woodland; one (1) ranger; one (1) towerman; forty-three (43) signed-up volunteer fire fighters; cooperating

since 1932. President—J. F. Yarborough, Jenkinsville, S. C.; Vice-President—W. L. Drummond, Jenkinsville, S. C.; Secretary-Treasurer—M. H. Sternenberg, Jenkinsville, S. C.

(7) *First Clarendon Association*: Private protective association composed of twenty-one (21) landowners and covering 22,895 acres in Clarendon County; one (1) ranger; one (1) towerman; four (4) retainer fee crew members; thirty-four (34) signed-up volunteer fire fighters; cooperating since 1934. President—G. T. Floyd, Manning, S. C.; Vice-President—P. G. Gourdine, Kingstree, S. C.

(8) *Florence County Association*: County-wide protection effective November 1935; 301,205 acres of woodland; one (1) County Ranger; three (3) County Wardens; three (3) towermen—additional towermen to be employed fiscal year 1936-37 at tower recently constructed near Timmons ville; twenty (20) retainer fee crews composed of sixty (60) members; three (3) flexible fire fighting crews of thirteen (13) men. President—W. Clyde Graham, Pamplico, S. C.; Vice-President—D. S. McCarthy, Florence, S. C.

(9) *Georgetown County Association*: County-wide protection effective January 1936; 499,614 acres of woodland (largest per cent—91%—of forest area of any county in South Carolina); one (1) County Ranger; three (3) County Wardens; three (3) towermen—additional towerman to be employed fiscal year 1936-37 at tower to be constructed south of Georgetown on Highway No. 17; twenty (20) retainer fee crews of sixty (60) men; three (3) flexible fire fighting crews composed of ten (10) men; seven (7) signed-up volunteer fire fighters. President—L. H. Siau, Georgetown, S. C.; Vice-President—L. T. Easley, Georgetown, S. C.

(10) *Hardeeville Association*: Private protective association composed of five (5) members and covering 29,800 acres of woodland in lower Beaufort County; one (1) ranger; one (1) towerman; four (4) retainer fee crews composed of twelve (12) members; three (3) signed-up volunteer fire fighters; cooperating since summer of 1933. President—J. C. McTeer, Hardeeville, S. C.; Vice-President—Lester Varn, Jacksonville, Florida.

(11) *Jasper Association*: Private protective association composed of four (4) members and covering 27,119 acres of wood-

land in Jasper County; one (1) ranger; one (1) towerman; six (6) retainer fee crews of sixteen (16) men; cooperating since 1932. President—J. Hoyt Langford, Gillisonville, S. C.; Vice-President—W. L. Rhodes, Estill, S. C.

(12) *Kershaw County Association*: County-wide protection effective November 1935; 271,106 acres of woodland; one (1) County Ranger; three (3) County Wardens; two (2) towermen—three additional towermen will be employed for the fiscal year 1936-37 at two towers constructed during last of this year and one to be constructed in fall of 1936; twenty (20) retainer fee crews composed of sixty (60) men. President—Henry Savage, Jr., Camden, S. C.; Vice-President—L. I. Guion, Lugoff, S. C.

(13) *Latta Association*: Private protective association composed of 101 landowners and covering 38,597 acres in Dillon and Marion Counties; one (1) ranger; one (1) warden; two (2) towermen; 172 signed-up volunteer fire fighters; cooperating since 1934. President—Dr. S. C. Henslee, Dillon, S. C.; Vice-President—H. N. Cousar, Dillon, S. C.; Secretary-Treasurer—Dr. Wade Stackhouse, Dillon, S. C.

(14) *Nichols Association*: Private protective association composed of sixty-two (62) landowners and covering 12,820 acres of woodland in Marion and Dillon Counties; one (1) ranger; one (1) towerman; 150 signed-up volunteer fire fighters; cooperating since 1934. President—Dr. W. L. Reaves, Mullins, S. C.; Vice-President—J. W. Smith, Mullins, S. C.; Secretary-Treasurer—W. G. Nichols, Nichols, S. C.

(15) *Stokes Association*: Private protective association composed of thirty-six (36) members and protecting 23,309 acres of woodland in Colleton County; one (1) ranger; one (1) towerman; six (6) retainer fee crews composed of eighteen (18) members; twenty-four (24) signed-up volunteer fire fighters; cooperating since 1934. President—M. P. Howell, Walterboro, S. C.; Vice-President—J. W. Williams, Ruffin, S. C.

(16) *Sumter County Association*: County-wide protection since fall of 1934 (First county in South Carolina to include entire county in forest fire protection); one (1) County Ranger; three (3) County Wardens; three (3) towermen; twenty-five (25) retainer fee crews composed of seventy-five (75) men; three

(3) flexible fire crews of eighteen (18) members; twelve (12) signed-up volunteer fire fighters. President—M. S. Boykin, Sumter, S. C.; Vice-President—S. K. Nash, Sumter, S. C.

(17) *West Virginia Pulp and Paper Co.*: Private protective association of one member covering 150,000 acres in Berkeley, Dorchester, Charleston and Colleton Counties; three (3) rangers; five (5) wardens; four (4) towermen; three (3) retainer fee crew members; cooperating since fall of 1928. President—C. P. Cuthbert, Charleston, S. C.

(18) *Detection Units*: Ten units composed of eighteen (18) landowners and covering a total of 194,010 acres of forest land for which detection and reporting service only is rendered. All fire fighting is performed entirely by tenants and employees of the property owners. Each unit employs one (1) towerman. These units are located in Berkeley, Dorchester, Colleton, Charleston, Jasper, Hampton, Williamsburg, and Horry Counties. This type of fire protection service to landowners was initiated in the fall of 1934.

National Forests—Protection

In addition to the forest fire protection provided by the State and Federal Governments through private and county associations, the Federal Government through the U. S. Forest Service has under protection at present 363,764 acres in four units of the South Carolina and Croatan National Forest. These lands are located in Union, Chester, Fairfield, Newberry, Laurens, Abbeville, McCormick, Edgefield, Greenwood, Saluda, Berkeley, Charleston and Oconee Counties.

Proposed Protection

Increased interest in forest fire control work was indicated during the year by the number of requests from landowners and county officials. The legislative delegations of both Lee and Richland Counties have provided funds for including their respective counties in county-wide forest fire protection work during the fiscal year 1936-37. It is also proposed that Dillon County enter county-wide protection during the 1936-37 fiscal year.

Interest in fire control work and plans for entering protection in the near future were initiated by landowners, county officials or both in the following cases:

McCormick County	Clarendon County
Oconee County (Upper Half)	Colleton County (Green Pond Sec.)
Greenville County	Hampton County (Cummings Sec.)
Jasper County	Horry County (Loris-Wampee Sec.)
Richland County	Dillon County




The forest areas under protection for the fiscal year 1936-37, and the areas where interest in future protection has been indicated are shown on the map on page 53 of this report.

Forest Fire Statistics

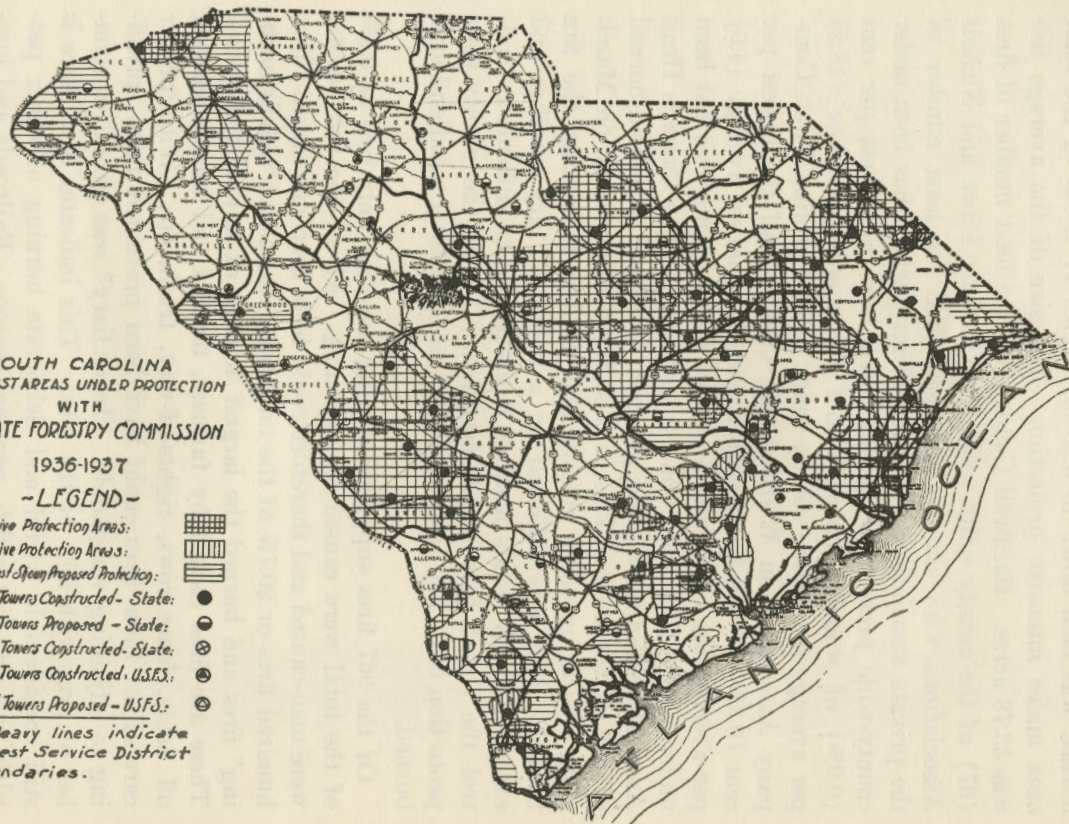
Accurate data as to the acreage burned on the *extensive* protection units is not available due to the fact that the Commission cooperates only in detecting and reporting fires—the actual fire fighting being handled entirely by the landowners. On the *intensive* protection units, however, records are kept as accurately as possible and the data from these units have been compiled for this report.

**SOUTH CAROLINA
FOREST AREAS UNDER PROTECTION
WITH
STATE FORESTRY COMMISSION
1936-1937**

-LEGEND-

- Intensive Protection Areas:* 
Extensive Protection Areas: 
Interest-Spot/Proposed Protection: 
Steel Towers Constructed - State: ●
Steel Towers Proposed - State: ○
Wood Towers Constructed - State: ⊗
Steel Towers Constructed - U.S.F.S.: ⊙
Steel Towers Proposed - U.S.F.S.: ⊕

Heavy lines indicate
Forest Service District
Boundaries.



On the seventeen intensive protective associations a total of 967 fires were suppressed during the year. The cooperating area burned was held down to 32,666.47 acres or 1.38% of the total area under intensive protection. The size of the average fire was 33.78 acres. Barnwell County had the least number of fires (67) of the county units while the Carolina Fibre and Nichols Associations with six (6) fires each had the least number of the private associations. Sumter County, which has been under county-wide protection for two years had the lowest per cent (0.9%) of woodland burned and the smallest acreage (18.2) per average fire of the county units. The Carolina Fibre Company Association in Williamsburg County had the lowest per cent (0.3%) of woodland burned and the smallest average (4.0) per average fire of the private associations. This area has been under cooperative protection for nine years. The Caesar's Head Association had the highest per cent. (4.9%) of woodland burned of any of the units. This area suffered a hurricane on March 17th, which uprooted considerable timber increasing the fire hazard. This was followed by a period of dry weather and extremely high winds making it exceptionally difficult to control the forest fires which occurred. All of the county-wide protection units had less than 1.75% of their total woodland area burned.

Of the 967 fires suppressed during the year only two or 0.2% of the total were caused by lightning. All of the rest—99.8% were man-caused and therefore could have been prevented. Two hundred fires or 20.7% of the total were classed as "debris burning" fires and burned the largest acreage of any of the causes. These are fires caused by farmers, tenants and others burning off fields, fence rows, rights-of-way, trash, etc. With proper care all of these fires could have been prevented from spreading to adjoining woodlands. "Incendiary" was second in number of fires with 20% of the total. This indicates that there is still considerable wilful and deliberate burning of other people's property for selfish, personal reasons. Railroads and lumbering operations were responsible for only 4% each of the total number of fires. Generally it is thought that these two causes are responsible for most forest fires but records indicate that their responsibility is limited to a small percentage.

Over 75% of the fires suppressed occurred in February, March, April, and May with the greatest number (31.3%) occurring in March. Fires occurred on protected areas in some sections of the State during every month in the year with the exception of September. The largest average area per fire occurred during the months of October and June. In both of these months extremely dry weather, with relatively high winds, for all or part of the month made fires harder to suppress than in the other months.

More detailed data concerning forest fire records for the fiscal year will be found on pages 56, 57, 58, 59, and 60.

TABLE NO. 1
SUMMARY OF REPORTED FIRES FOR INTENSIVE PROTECTED AREAS IN
SOUTH CAROLINA
July 1, 1935—June 30, 1936

Protection Area (Intensive)	Area Protected (Acres)	No. Fires	Area Burned (Acres)	Percent Burned	Average Size Fire (Acres)
Aiken County *	477,640	162	8,085.37	1.7	49.9
Barnwell County *	166,626	67	2,883.25	1.7	43.0
Caesar's Head Association	43,467	27	2,134.75	4.9	79.1
Carolina Fibre Company	9,500	6	24.00	0.3	4.0
Estill Association	21,302	24	120.75	0.6	5.0
Fairfield Association	23,336	15	461.50	1.6	30.8
1st Clarendon Association	22,895	9	937.00	4.1	104.1
Florence County *	301,205	138	3,130.00	1.04	22.7
Georgetown County **	499,614	78	5,558.00	1.1	71.3
Hardeeville Association	29,800	10	234.25	0.8	23.4
Jasper Association	27,119	35	1,175.25	4.3	33.6
Kershaw County *	271,106	128	3,341.50	1.2	26.1
Latta Association	38,597	29	556.00	1.4	19.1
Nichols Association	12,820	6	120.00	0.9	20.0
Stokes Association	23,309	50	715.25	3.1	14.4
Sumter County	244,356	116	2,110.25	0.9	18.2
W. Va. P. & P. Co.—Charleston	150,000	67	1,079.35	0.7	16.1
Totals	2,367,692	967	32,666.47	1.38	33.78

* County-wide Protection November 1935-June 1936—8 months.

** County-wide Protection January-June 1936—6 months.

TABLE NO. 2
CLASSIFICATION BY SIZE
July 1, 1935—June 30, 1936

Size of Fire	No. of Fires	Percent by Number	Area Burned (Acres)	Average Size of Fire (Acres)
Class A: 0-¼ Acres	37	3.8	7.47	0.20
Class B: ¼- 10 Acres	505	52.2	2,133.25	4.22
Class C: 10-100 Acres	360	37.2	12,801.75	35.56
Class D: 100-500 Acres	53	5.5	9,189.00	173.38
Class E: 500- over Acres	12	1.3	8,535.00	711.25
Totals	967	100.0	32,666.47	33.78

TABLE NO. 3
CLASSIFICATION BY CAUSE
July 1, 1935—June 30, 1936

Cause	No. of Fires	Percent by Number	Area Burned (Acres)	Average Size of Fire (Acres)
Lightning	2	0.2	34.00	17.00
Railroads	39	4.0	1,381.00	35.41
Campers	35	3.6	1,242.25	35.49
Smokers	158	16.3	4,664.90	29.52
Debris Burning	200	20.7	7,411.12	37.06
Incendiary	193	20.0	4,914.95	25.47
Lumbering	39	4.0	1,744.25	44.72
Miscellaneous	115	11.9	4,389.75	38.17
Unknown	186	19.3	6,884.25	37.01
Totals	967	100.0	32,666.47	33.78

TABLE NO. 4
SUMMARY OF FIRES BY MONTHS
July 1, 1935—June 30, 1936

Month	No. of Fires	Percent by Number	Area Burned (Acres)	Average Size of Fire (Acres)
July	4	0.4	12.00	3.00
August	4	0.4	6.00	1.50
September .....	.....	.....	.....	.....
October	13	1.4	760.25	58.48
November	30	3.1	362.75	12.09
December	69	7.1	2,295.45	33.27
January	63	6.5	1,643.75	26.09
February	123	12.7	3,969.95	32.28
March	302	31.3	11,754.25	38.92
April	155	16.0	5,005.82	32.30
May	151	15.6	4,024.00	26.65
June	53	5.5	2,832.25	53.44
Totals	967	100.0	32,666.47	33.78

TABLE NO. 5
SUMMARY OF FIRES BY PROTECTION UNIT AND CLASS
Fiscal Year 1935-1936 (Cooperating Area Only)

UNIT	Class A (0-¼ Ac.)		Class B (¼-10 Ac.)		Class C (11-100 Ac.)		Class D (101-500 Ac.)		Class E (Over 500 Ac.)	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Aiken County *	8	1.87	78	262.5	59	2,183	14	2,741	3	2,897
Barnwell County *	2	0.5	37	293.75	27	2,239	1	350	.....	.....
Caesar's Head Association	2	(neg.)	6	26.5	10	170.25	4	400	5	1,538
Carolina Fibre Company	.....	.....	6	24	.....	.....	.....	.....	.....	.....
Estill Association	3	0.5	17	44.25	3	76	1	.....	.....	.....
Fairfield Association	.....	.....	5	22.5	9	239	1	200	.....	.....
First Clarendon Association	.....	.....	2	15	4	72	2	250	1	600
Florence County *	5	1	66	331	62	1,962	5	836	.....	.....
Georgetown County **	.....	.....	25	112	42	1,751	9	1,595	2	2,100
Hardeeville Association	.....	.....	5	9.25	4	185	1	40	.....	.....
Jasper Association	2	0.5	23	40.75	5	72	5	1,062	.....	.....
Kershaw County *	4	0.5	74	259	45	1,157	4	525	1	1,400
Latta Association	5	1	17	69	5	166	2	320	.....	.....
Nichols Association	.....	.....	3	15	3	105	.....	.....	.....	.....
Stokes Association	5	1.5	25	71.25	20	642.5	.....	.....	.....	.....
Sumter County	.....	.....	69	366.25	45	1,429	2	315	.....	.....
West Virginia P. & P. Co., Charleston	1	0.1	47	171.25	17	353	2	555	.....	.....
Totals	37	7.47	505	2,133.25	360	12,801.75	53	9,189	12	8,535

*County-wide Protection November 1935-June 1936—8 months.

** County-wide Protection January-June 1936—6 months.

TABLE NO. 6

SUMMARY OF FIRES BY PROTECTION UNIT AND CAUSE
Fiscal Year 1935-36 (Cooperating Area Only)

UNIT	Lightning		Railroads		Campers		Smokers		Debris Burning		Incendiary		Lumbering		Miscel.		Unknown	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Aiken County *	2	77	2	230	36	2,121.5	50	2,124.87	9	208.25	9	566.25	14	1,280.25	40	1,477.25
Barnwell County *	1	34	3	206.5	7	281	14	784	20	967.5	5	82	2	100	5	193	10	235.25
Caesar's Head Association	1	(neg.)	...	...	2	0.25	6	114	10	786	6	1,179.5	...	...	...	...	2	55
Carolina Fibre Company	1	6	...	...	1	2	...	...	...	...	4	16
Estill Association	1	0.5	...	...	4	1.15	1	4	2	5.1	1	2	12	77.75	3	30.25
Fairfield Association	8	370	...	...	1	25	5	47.5	...	...	1	19	...	...	...	...
First Clarendon Association	1	10	...	...	1	12	7	915	...	...
Florence County *	1	1.0	3	150	26	367	39	958	15	367	3	358	21	505	30	424
Georgetown County **	3	270	7	73	10	304	15	906	...	...	13	393	30	3,612
Hardeeville Association	5	80.25	4	114	...	...	1	40	...	...	...	...
Jasper Association	10	486	1	2	3	30.25	1	2	...	...	15	624	1	25	4	6
Kershaw County *	11	127	10	206	32	818	22	1,605	24	279.75	4	14	9	111	14	180.75
Latta Association	1	0.5	7	16.5	17	528	1	4	2	5	1	2
Nichols Association	6	120	...	...
Stokes Association	3	32.75	5	79	22	221.75	...	...	...	...	20	381.75
Sumter County	3	113	7	103	15	145.5	21	337.25	37	907	1	5	9	102	23	397.5
West Va. P. & P. Co., Charleston	4	66	4	55.5	38	228.6	...	...	16	662.75	5	66.5
Totals	2	34	39	1,381.00	35	1,242.25	158	4,664.90	200	7,411.12	193	4,914.95	39	1,744.25	115	4,389.75	186	6,884.25

* County-wide Protection November 1935-June 1936—8 months.

** County-wide Protection January-June 1936—6 months.

TABLE NO. 7
SUMMARY OF FIRES BY PROTECTION UNIT AND MONTH
Fiscal Year 1935-36 (Cooperating Area Only)

UNIT	July '35		August		Sept.		October		Nov.		December		Jan. '36		Feb'y		March		April		May		June '36	
	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area	No.	Area
Aiken County *	2	26	5	117	3	215	28	1,209.25	54	3,761.75	23	842.12	38	1,683.25	9	231
Barnwell County *	4	96.75	13	920	3	168	8	752.25	19	552.25	6	107	8	157	6	160
Caesar's Head Association	1	1.5	..	..	5	0.25	..	..	2	2.0	7	1,502	6	514	5	105	1	10
Carolina Fibre Company	1	6	3	12	..	..	2	6	..	..	..	..	..	..
Estill Association	2	3	..	..	..	..	2	0.5	1	..	4	4.5	..	..	3	33	5	69	3	3.75	3	5	1	2
Fairfield Association	2	5	..	..	..	..	2	75	2	55	2	225	4	63	3	38.5
First Clarendon Association	1	150	..	..	..	..	1	600	4	52	3	135	..	..	..	..
Florence County *	4	12.0	13	408.0	9	121.0	21	252.0	38	908	24	489	18	715	11	225
Georgetown County **	20	696	9	248	25	1,329	23	1,785	..	..	1	1,500
Hardeeville Association	1	0.75	..	..	1	0.5	..	..	2	50	3	175	1	4	2	4	..	..
Jasper Association	6	756	2	2	4	29	4	2.25	7	22	6	11	2	12.5	3	340	1	0.5
Kershaw County *	7	11	9	184.7	7	257	8	69.95	33	1,676	23	453.35	38	606.5	3	83
Latta Association	2	240	3	5	2	6	14	56	2	35	4	34	2	180
Nichols Association	1	3	1	50	2	55	2	12	..	..	..	..	..	..
Stokes Association	2	0.5	..	..	1	1.5	4	34.5	6	105	26	484.5	4	18.5	5	35.25	2	35.5
Sumter County	5	57	8	95	5	82	15	163.5	45	940	19	266.5	10	172	9	334.25
W. Va. P. & P. Co., Cha'ston	2	9	4	6	..	..	1	1	2	3	2	286	1	1	7	327	17	194.75	14	115.1	13	104	4	32.5
Totals	4	12	4	6	..	..	13	760.25	30	362.75	69	2,295.45	63	1,643.75	123	3,969.95	302	11,754.25	155	5,005.82	151	4,024.00	53	2,832.25

*County-wide Protection November 1935-June 1936—8 months.

**County-wide Protection January-June 1936—6 months.

South Carolina's CCC camps engaged in forestry work on State and privately owned lands are under the immediate supervision of R. A. Conard, Director ECW. Mr. Conard is an employee of the Federal Government and in his capacity as Director of ECW is charged with the construction of projects conceived, planned, and located by the Forest Commission. In the operation of the 17 camps assigned us during the fiscal year covered by this report, a total of 154 camp months were used and over \$392,000 were expended through the office of the State Forester.

EMERGENCY CONSERVATION WORK

During the year seventeen camps were assigned for forestry work on State-owned and private land. However, this number was gradually reduced during the first part of 1936 so that by April only eight camps were left.

The end of this fiscal year also marked the end of the third year of the CCC. During the first year it was not anticipated that the organization would be continued indefinitely and as a result there was an effort to get a quantity of work accomplished with less emphasis placed on the quality. During the second year the supervisory organization of the Emergency Conservation Work was enlarged and better standards of work were established.

The work, therefore, that was done during this fiscal year was in all phases of a higher type. For example, the roads, or truck trails, constructed compare favorably with the better class county roads and the bridges and culverts were designed for ten-ton loading and built of the most durable materials available.

In addition to the Aiken State Forest, which was started during the previous year, work on three additional State Forests was commenced. One is located in Oconee County, one in Greenville County and the third in Lee County. In all of these forests many features of a recreational nature have been constructed in addition to the fire protection, timber stand improvement and other forestry developments.

Last December the Director of ECW in Washington issued instructions that more emphasis must be placed on the educational program in the CCC camps. In accordance with this order a special assistant, Mr. D. Y. Lenhart, was put on in this department to work in cooperation with the Army educational service in enlarging the educational program in our camps. The supervisory personnel in each camp was drafted into this work, especially for vocational and forestry training. Mr. Lenhart prepared a booklet "The South Carolina Conservation Corps Forester" which was published by the State Forestry Commission, and it is contemplated in a month or so to start giving the enrollees a definite course in the elements of forestry.

Last October the Regional Forester authorized the installation of a Central Repair Shop for handling the heavy repair work

on our trucks, tractors and other equipment. This shop was placed at Sumter in November and has resulted in a great saving in the maintenance of our equipment. In addition to three mechanic foremen, who have general charge of the work, sixteen enrollees from Camp P-88, Lee County, are employed there. Incidentally, this is proving a valuable asset to the vocational training of these enrollees.

In May we received permission to install a small concrete pipe plant, which is located at Camp P-63, Sumter County. This plant makes 15-inch, 18-inch, and 24-inch pipe which is used by all of the camps under our jurisdiction in connection with truck trail construction.

The Central Warehouse, located near Camden, which was constructed last year, has proved very serviceable.

During the year great emphasis has been placed on the Safety Program. Safety meetings have been held in all camps once a week. These meetings are under the joint direction of the Company Commander and Superintendent and are attended by the foremen, leaders, assistant leaders, and truck drivers. Frequently the entire company attends.

In June a timber type survey was started of all counties in which camps are located. Later it is intended to extend this into other counties with the object of ultimately covering the whole State. The maps made from these surveys will prove valuable to the State Forester in planning forest fire protection work.

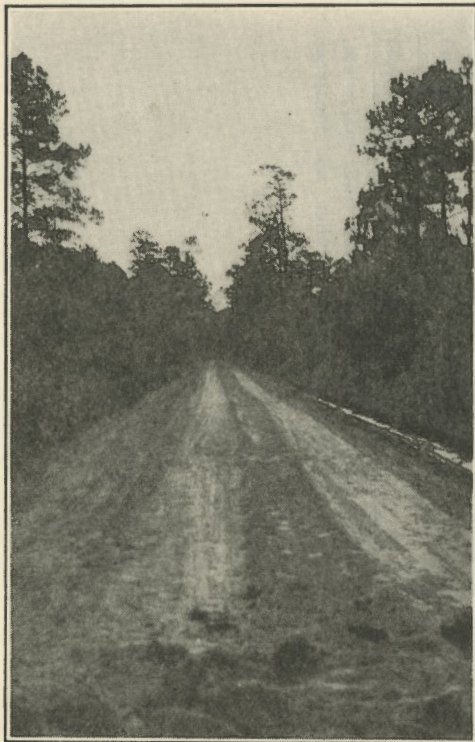
It is evident from the many inspection trips made to the camps that a high standard of morale among the enrollees is being maintained. The boys appear to be well fed, reasonably contented and display a serious minded attitude toward their work which is very gratifying. Credit for this should be given both to the Army officials and to our own supervisory personnel. The Company Commanders seem to take great pride in the appearance and operation of the camps and our superintendents and foremen show an equal pride in turning out work projects of a high order.

This office has received full cooperation from the Army officials of District "I" and District "B" without which many of our projects would have been seriously handicapped.

It is evident that the record made by the CCC program has reacted favorably on the public. Wherever an expression of

opinion has been obtained it has been uniformly high in its praise of the organization.

Following are two statements, one showing the cost of supervision, materials and equipment for the various camps for the year ending June 30, 1936, and the other showing the amounts of the various types of work accomplished.



Type of Truck Trails constructed by CCC camps for transportation and Fire Control upon forest protective association areas—Georgetown County. Note permanency of construction materials used. Concrete pipe manufactured in the CCC camp.

STATE OF SOUTH CAROLINA
REPORT ON EXPENDITURES* BY CCC CAMPS
EMERGENCY CONSERVATION WORK

Period July 1, 1935 to June 30, 1936

Camp No.	County	Period		Amount
		From	To	
P-51	Greenville	7-1-35	6-30-36	\$ 27,427.93
P-53	Florence	7-1-35	1- 8-36	11,741.62
P-56	Berkeley	7-1-35	4-28-36	20,978.31
P-57	Marion	7-1-35	10-24-35	7,764.27
P-60	Dorchester	7-1-35	10-22-35	6,626.09
P-61	Georgetown	7-1-35	6-30-36	21,870.27
P-63	Sumter	7-1-35	6-30-36	26,933.05
P-64	Beaufort	7-1-35	10-18-35	5,057.63
P-68	Colleton	7-1-35	10-24-35	7,204.74
P-70	Barnwell	7-1-35	6-30-36	33,844.32
P-71	Richland	7-1-35	6-30-36	35,647.77
S-74	Aiken	7-1-35	6-30-36	32,327.17
S-75	Oconee	7-1-35	6-30-36	39,257.12
P-87	Kershaw	7-1-35	1-15-36	11,600.91
P-88	Lee	7-1-35	6-30-36	23,843.96
Columbia Office	Richland	7-1-35	6-30-36	62,514.94
Central Repair Shop	Sumter	11-1-35	6-30-36	18,040.40
Total				<u>*\$392,680.50</u>

* Includes only supervisory personnel and materials and equipment. Does not include pay of CCC boys, their food or clothes, nor construction or operation of the camps.

REPORT OF WORK ACCOMPLISHED AT FORESTRY CCC CAMPS

July 1, 1935 to June 30, 1936

STRUCTURAL IMPROVEMENTS—

Bridges:

Foot—Number built	3
Vehicle—Number built	40

Buildings:

Barns—Number built	5
Bathhouses—Number built	2
Cabins, over-night—Number built	1
Dwellings—Number built	5
Equip. & Sup. St. Houses—Number built	5
Latrines and toilets—Number built	1
Lodges—Number built	1
Lookout Towers—Number built	12
Shelters, other—Number built	2
Other Buildings—Number built	4

Dams:

Imp. & Lge. Division Dams—Number built	1
Earth Filled—Cubic Yards built	6,402
Rock Filled—Cubic Yards built	3,625
Excavation, Earth—Cubic Yards built	3,484
Excavation, Rock—Cubic Yards built	220
Masonry—Cubic Yards built	23
Riprap—Cubic Yards built	320.1
Steel—Cubic Yards built	2,402

Sewage and Waste Disposal Systems:

Dis. Tanks & C'Pools—Number built	2
Sewer Lines—Lin. Ft.	2,800
Telephone Lines—Miles	200.9

Water Supply Systems:

Fountains, drinking—Number built	3
Open Ditches—Lin Ft.	4,200
Pipe or Tile Lines—Lin. Ft.	1,703
Storage Facilities—Gallons	4,500

Other Structural Improvements:

Camp Stoves or Fireplaces—Number built	15
Seats—Number built	38
Signs, Markers & Monts.—Number built	104
Table and Bench Combinations—Number built	14
Toolboxes—Number built	25
Miscellaneous—Number built	31

TRANSPORTATION IMPROVEMENTS—

Roads:

Truck Trails—Miles	218.3
Minor—Miles	13.0
Foot—Miles	7.8
Horse—Miles	0.2

EROSION CONTROL—

Area Treated—Acres	3.5
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Treatment of Gullies:

Check Dams, Permanent—Number built	50
Seeding and Sodding—Square Yards	75

FLOOD CONTROL, IRRIGATION AND DRAINAGE—

Clearing and Cleaning:

Channels—Square Yards	12,000
Excavation, Channels, Canals and Ditches—Earth, Cu. Yd.	4,678

FOREST CULTURE—

Field Planting or Seeding (trees) Acres	2,386.7
Forest Stand Improvements—Acres	201.5
Nurseries—Man-days	32,685

Tree Seed Collection:

Conifers (cones)—Bushels	15,215
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FOREST PROTECTION—

Fighting Forest Fires—Man-days	2,409
Fire Breaks—Miles	2,495

Fire Hazard Reduction:

Trailside—Miles	39.4
Other—Acres	314
Fire Presuppression—Man-days	1,894
Fire Prevention—Man-days	724
Tree and Plant Disease Control—Acres	0.3
Tree Insect Pest Control—Acres	45

LANDSCAPE AND RECREATION—

Beach Improvement—Acres	7.6
General Clean-up—Acres	19,968.5
Lake or Pond Site Clearing—Acres	47.9
Landscaping, Undifferentiated—Acres	11.7
Moving and Planting Trees and Shrubs—Number	16,719

Obliteration:

Roads—Miles	0.2
Parking Areas and Parking Overlooks—Square Yards	4,900
Public Picnic Ground Development—Acres	232

Razing Undesirable Structures—Number	9
Seed Collection, Flowers, Grasses and Shrubby	1,600
Seeding or Sodding—Acres	7.5
Soil Preparation (Top soiling, fertilig., fitg., etc.)—Acres	15
Vista or Other Selective Culg. or Effect—Acres	250

OTHER ACTIVITIES—

Emergency Work:

Search or Rescue of Persons—Man-days	255
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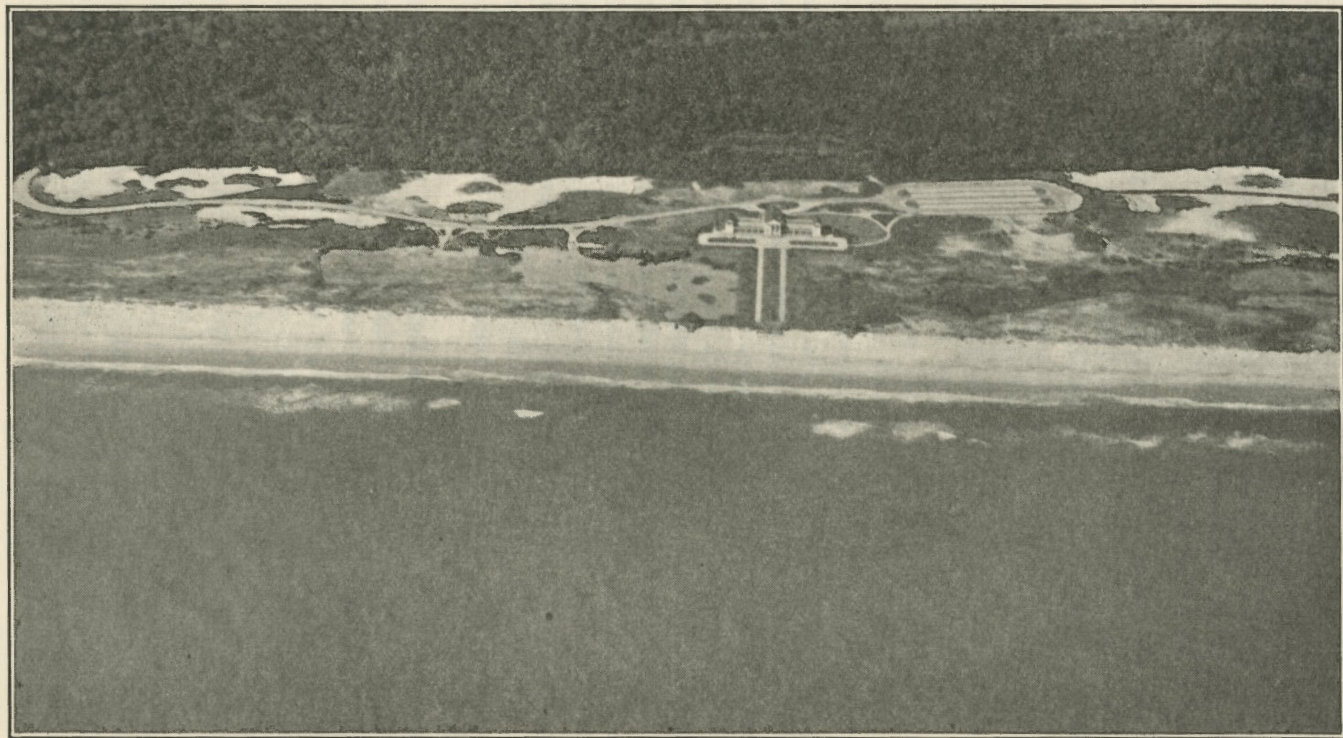
Maps:

Type, Topographic, etc.—Man-days	151
Marking Boundaries—Miles	16.5
Preparation and Transportation of Materials—Man-days	9,734

Surveys:

Lineal—Miles	476.4
Topographic—Acres	25,901.5
Type—Acres	200
Total Man-days Employed Fiscal Year	357,178

The development of South Carolina State Parks is being carried on by the Civilian Conservation Corps Camps under the supervision of the National Park Service. The State Forest Service is the procurement office and Park Authority for the State and is represented by Assistant State Forester, R. A. Walker. His work includes the planning of projects and the supervision of construction work upon the areas. Eight camps are located upon seven park areas and one park, Givhans Ferry, has a sub-camp finishing up work left by a camp transferred to another location.



Myrtle Beach State Park, Horry County, showing beach area including parking area, bath house and boardwalk.

SOUTH CAROLINA STATE PARKS

Development work on South Carolina State Parks was continued under the CCC Camp program in cooperation with the National Park Service. There are indications that the National Government will cooperate financially with States in the operation of State Park areas.

The only particularly new development in the State Park program was the Wayside Park program under the supervision of the National Park Service and in which this office cooperates only to the extent of approving plans. When this program was set up we were requested by the National Park Service to recommend locations for Wayside Parks upon specified highways. The Resettlement Administration through the National Park Service was willing to buy small areas of approximately 20 to 50 acres for the development of Wayside Parks with WPA labor. Some twelve areas were recommended upon the highways designated by the Park Service and areas in Greenville, Greenwood, Aiken, Colleton, Kershaw, Cherokee, Marlboro and Georgetown Counties were tentatively approved. During the year a special office to handle this sort of work was opened in Columbia under the jurisdiction of D. F. Roll, a representative of the Resettlement Administration. Later on work was started on the Greenville and Greenwood units. Toward the end of the fiscal year the Resettlement Administration program on these Parks was taken over by the National Park Service. Some time later Mr. Roll resigned his position and left the State, but he was replaced by Mr. Louis Roth and plans for development of the areas are being carried forward.

At the Cheraw State Park the Resettlement Administration, now handled entirely by the National Park Service, has practically completed the acquisition of some 8,000 acres of land as an extension to the present Cheraw State Park. There is engaged upon the area today one CCC camp and several hundred WPA laborers in the development of the recreational features upon the area. These features include a three hundred acre clear water lake, two group camps for the accommodation of such organized groups as Boy Scouts, Girl Scouts, Farm Women, 4-H Clubs and Future Farmers. In addition a bathhouse and bathing beach is contemplated together with vacation cabins, picnic grounds, nature study trails and the usual Park improvements.

At Givhans Ferry State Park (formerly Edisto State Park) the CCC camp was moved out and replaced several months later with a side camp from the camp at Edisto Beach. This smaller group is engaged in the finishing up of developments not completed by the original camp. These include the caretaker's house, bathhouse and pavilion, five vacation cabins, the formal entrance, the shelter on the bank of the river, the picnic area and the bathing beach.

At the Poinsett State Park in Sumter County the bathhouse and pavilion, caretaker's residence, picnic shelter, and rest shelter together with several nature study trails have been completed. Work is continuing upon the construction of a public camp ground, landscaping and the improvement of swimming facilities.

Myrtle Beach State Park at Horry County it is expected will be opened at least in part during the coming summer. The bathhouse and part of the boardwalk have been completed together with a rest shelter, two play ground areas and the custodian's residence. Work is continuing on five vacation cabins and the landscaping and upon one picnic area, and additional picnic area and additional cabins and extension of the boardwalk are being planned.

Table Rock State Park. At this Park in Pickens County five vacation cabins are under way and the bulk of the work upon the core wall of the dam has been completed, several miles of foot trail make Table Rock Mountain accessible even to the average climber and an attractive entrance way has been constructed to the entrance to the Park.

At the Aiken State Park in Aiken County the custodian's residence, barbecue area, two picnic areas, a bathhouse and three small lakes have been constructed. Work is proceeding with the construction of another fishing lake upon the property, the completion of which will practically complete the Park. Some 250 acres have been planted to forest tree seedlings upon poor farm lands upon the area.

Edisto Beach State Park in Charleston County. Here two cabins have been completed and plans laid for the construction of several more, one picnic shelter and picnic area have been completed and plans have been submitted for a bathhouse to accommodate the general public.

At the Chester State Park plans have been practically approved for a concession building, one picnic area has been constructed and the breast of the old dam has been redesigned and built. Plans call for the construction of caretaker's house, additional picnic areas, foot trails and rest shelters.

Paris Mountain State Park lying some seven miles from the Greenville city line has had constructed the custodian's house, parking area, bathhouse, picnic area and several miles of road which make two additional lakes available to the general public, upon one of which plans are being made for the construction of a group camp for under-privileged children of the industrial section of the State.

Lee County State Park has been increased in acreage from approximately 1,000 acres to 2,800 acres. Two small picnic areas have been designed and are being built, a custodian's residence, a small lake and fish hatcheries are being designed for construction in the near future. Considerable forestry work is contemplated upon this area which will represent a natural demonstration in hardwood forest management in the bottom lands of South Carolina.

At the Oconee State Park five vacation cabins have been completed together with the dam which forms a 20 acre lake, several miles of foot trail, the custodian's residence, one picnic shelter, two picnic areas, and the parking area, combination bathhouse and boat house under construction and public camp area is also planned. Considerable forestry work is contemplated upon this area to give demonstrations in intensive forest management upon the mountain hardwoods of this State.



One Of Numerous Waterfalls, Table Rock State Park, Pickens County.

State Parks promise to be one of the State's most popular programs. The interest in them has been manifested within the State by the thousands which weekly visit even the incompletd areas and the applications already received for the use of facilities under construction. The interest, however, is not confined to people within the State. The office of the Park Service has been swamped with requests for articles on S. C. State Parks from magazines of outdoor life, travel magazines, map companies, and such trade journals as the Standard Oil Company magazine, and the Ford Motor Company periodicals.

The following table shows the location of State Park Camps and the expenditures at each during the year covered by this report.

A record table shows the work accomplished by the camps by specific projects.

TOTAL EXPENDITURES* THROUGH STATE FOREST COMMISSION AT STATE PARK CAMPS

July 1, 1935 to June 30, 1936

Camp No.	County	From	To	Amount
SP-1	Chesterfield	7-1-35	6-30-36	\$ 34,513.36
SP-2	Dorchester	7-1-35	2- 9-36	22,295.59
SP-3	Sumter	7-1-35	6-30-36	23,014.18
SP-4	Horry	7-1-35	6-30-36	40,608.06
SP-5	Pickens	8-22-35	6-30-36	29,081.55
SP-6	Pickens	8-26-35	6-30-36	25,554.48
SP-7	York	7-25-35	6-30-36	26,756.57
SP-8	Charleston	8-21-35	6-30-36	26,193.66
SP-9	Chester	7-27-35	6-30-36	21,637.23
Procurement Office				9,033.01

Total

* \$258,687.69

* Includes expenditures for supervisory personnel and materials and equipment. Does not include pay of Army personnel or CCC boys or food, clothes or any of the expenses of general camp operations.

TOTAL WORK STATE PARKS AND RECREATIONAL DEMONSTRATION PROJECTS (Continued)

For Period July 1, 1935 to June 30, 1935

Project Name	Recreational Demonstration Projects	State Parks
Foot Bridges (No.)		*1
Vehicle Bridges—(No.)		3
Barns (No.)		2
Bathhouses (No.)		1
Cabins (No.)	27	14
Combination Buildings (No.)		3
Contact Stations (No.)		1
Dwellings (No.)	1	3
Garages (No.)	5	11
Latrines (No.)		8
Shelters (No.)		10
Miscellaneous Buildings (No.)	2	12
Concrete Dams (Cubic Yds.)	801	567
Earth Fill Dams (Cubic Yds.)	7,750	.....
Earth Excavation Dams (Cubic Yds.)	11,825	4,401
Rock Excavation Dams (Cubic Yds.)		718
Steel Dams (Pounds)	18,100	925
Guard Rails (Rods)		224
Power Lines (Miles)		3.6
Disposal Fields (Sq. Yds.)		647
Disposal Tanks (No.)		9
Incinerators (No.)		1
Sewer Lines (Lin. Ft.)		2,340
Telephone Lines (Miles)		15.6
Drinking Fountains (No.)		6
Open Ditches (Lin. Ft.)		1,150
Pipe Lines (Lin. Ft.)		17,535
Storage Tank (Steel Elevated) (No.)		1
Storage Reservoir (No.)		1
Open Fire Places (No.)		16
Portals (No.)		1
Stone Walls (Rods)		35
Table & Bench Combination (No.)		12
Truck Trails (Miles)	3.1	2.1
Park Roads (Miles)		13.9

**TOTAL WORK STATE PARKS AND RECREATIONAL
DEMONSTRATION PROJECTS (Continued)**

For Period July 1, 1935 to June 30, 1935

Project Name	Recreational Demonstration Projects	State Parks
Foot Trails (Miles)		3.0
Stream Bank Protection (Sq. Yds.)		44
Seeding and Sodding (Sq. Yds.)		9,900
Quarrying Rock (Tons)		1,500
Misc. Erosion Control Work (Man-days)	2,130	4,946
Cleaning and Clearing Ditches (Sq. Yds.)		1,000
Excavating Channels and Ditches (Cu. Yds.)		400
Masonry Water Control Structures (Cu. Yds.)		151.3
Culverts (No.)		33
Field Planting (Seedlings) (Acres)	140	297
Fighting Forest Fires (Man-days)		2,500
Fire Breaks (Miles)	2	8
Fire Hazard Reduction—Roadside (Miles)		2.5
Fire Hazard Reduction—Trailside (Miles)		3
Fire Hazard Reduction—Other (Acres)	3,200	603
Fire Presuppression (Man-days)		53
Fire Prevention (Man-days)		1,382
Beach Improvement (Acres)		90
Fine Grading (Sq. Yds.)		189,716
Lake Site Clearing (Acres)	68	41
Landscaping Undifferentiated (Acres)		311
Moving and Planting Trees and Shrubs (No.)	10,000	23,947
Obliteration Roads (Miles)		3.4
Obliteration Borrow Pits (Man-days)		2,836
Parking Areas (Sq. Yds.)		48,881
Public Camp Ground Development (Acres)		5
Public Picnic Ground Development (Acres)		0.3
Razing Undesirable Structures (No.)		1
Seeding and Sodding (Acres)		8.1
Soil Preparation (Acres)		80
Vista Cutting (Acres)		10
Board Walks (Lin. Ft.)		2,068
Lake and Pond Development (Man-days)		922
Cover Planting and Seeding (Acres)		87
Seed Collecting (Man-days)		62

TOTAL WORK STATE PARKS AND RECREATIONAL DEMONSTRATION PROJECTS

For Period July 1, 1935 to June 30, 1936

Project Name	Recreational Demonstration Projects	State Parks
Education, Guide & Contact Work (Man-days)		75
Eradication Poisonous Plants (Acres)		734
Insect Control (Acres)		150
Topographic Mapping (Man-days)		65
Mosquito Control (Acres)		240
Preparation & Transport. Materials (Man-days)	2,085	
Lineal Survey (Miles)	16	

